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TEXILE BULLETIN

VOL. 32

CHARLOTTE, N. C., THURSDAY, AUGUST 11, 1927

NUMBER 24

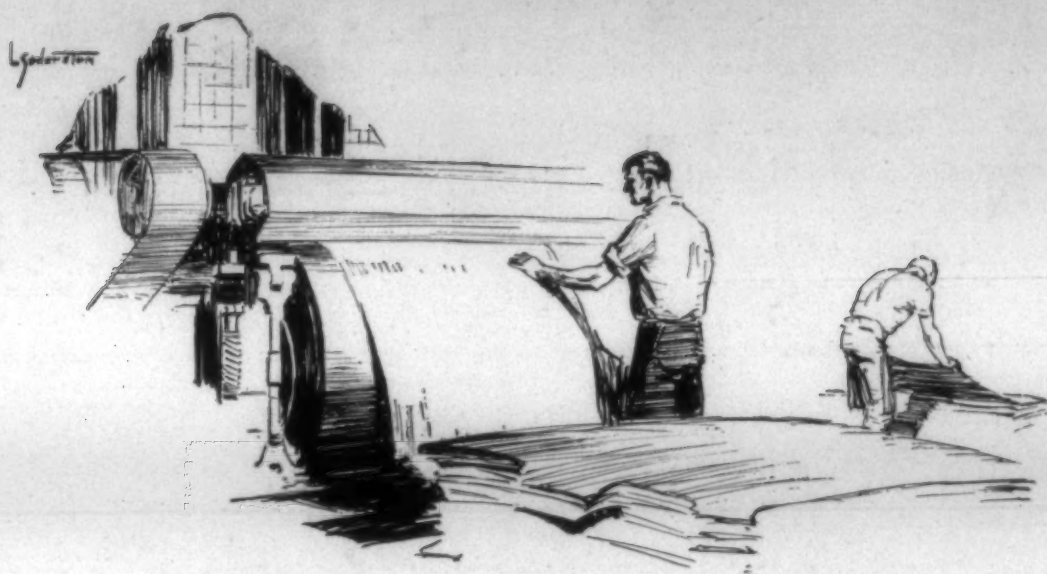
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You Should Buy
Draper Bobbins
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For the Same Reason
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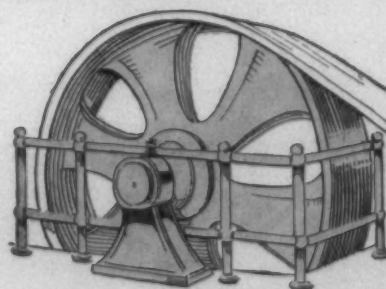
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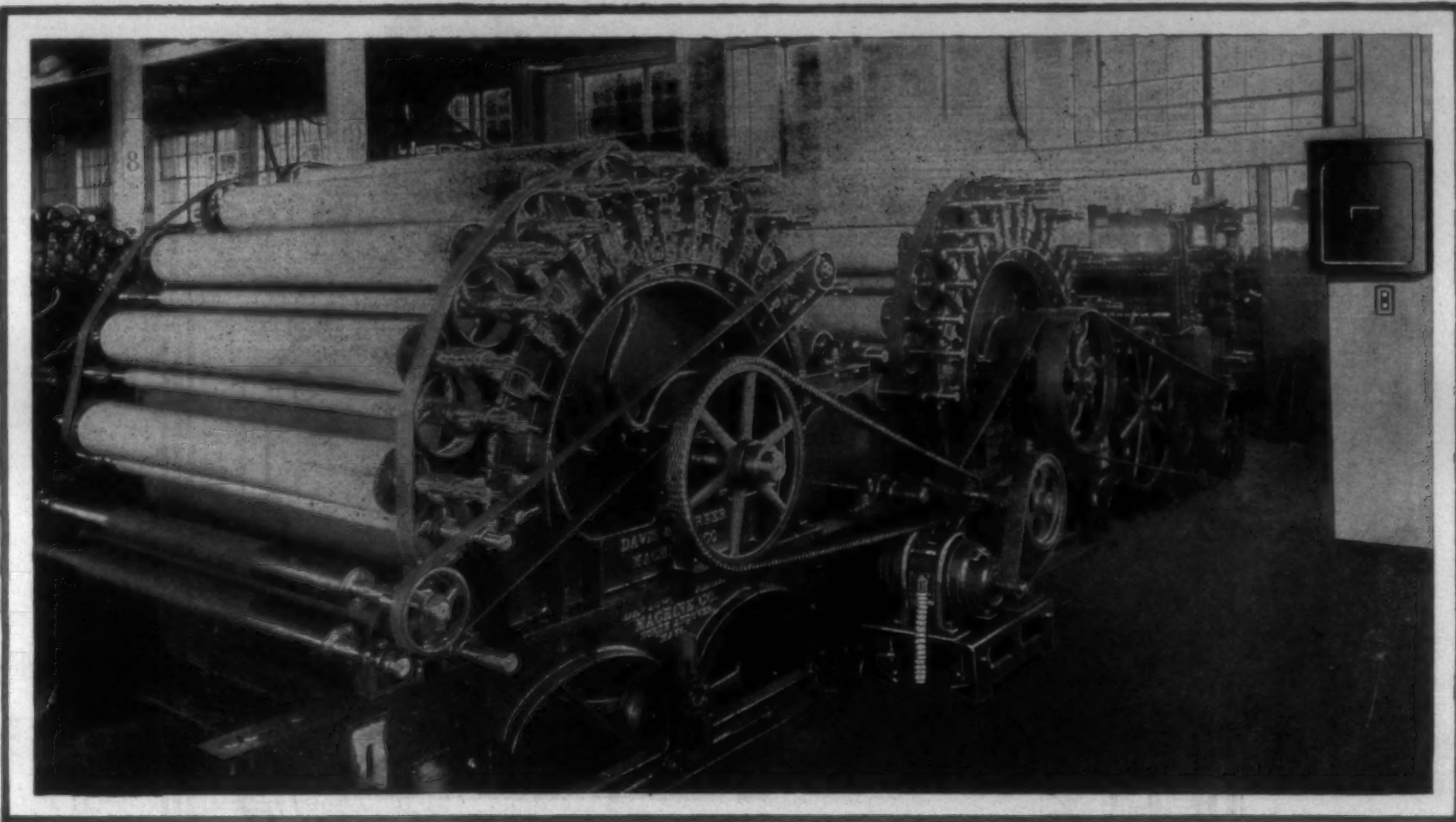
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TEXTILE MACHINERY

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Communicate with your nearest G-E office, and textile mill specialists will bring you full information and prompt service as to G-E Motorized Power for cards.

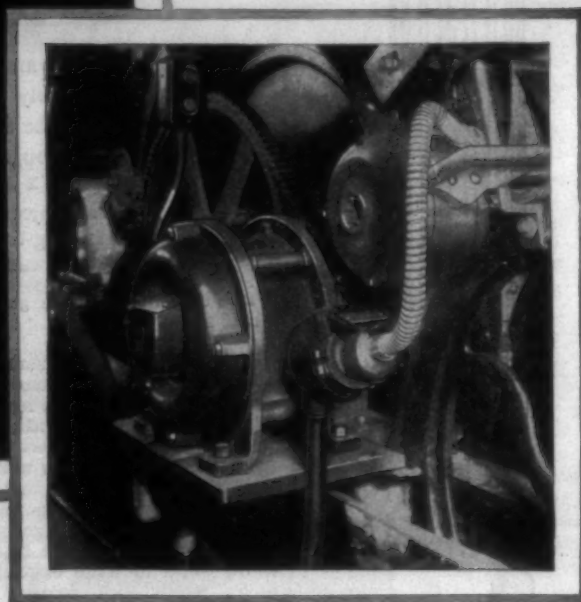
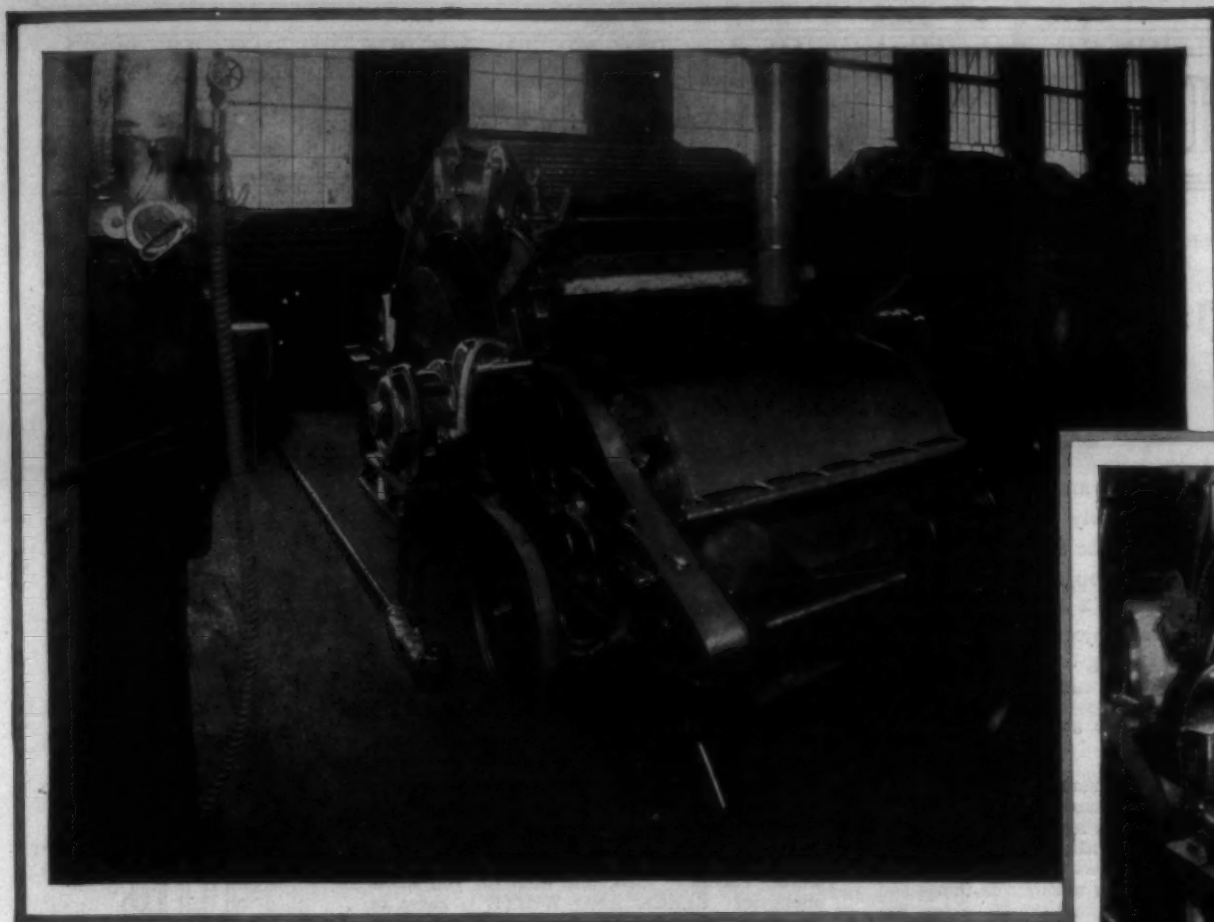
G-E Motorized Power is more than a motor or its control—it is a practical and economical application of electric power. "Built in" or connected to all types of textile machines, G-E Motorized Power provides lasting assurance that you have purchased the best.



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Nor is it a mere advertising proposition. No textile publication protects its editorial pages from advertising more religiously than the edi-

torial pages of BLACK AND WHITE shall be protected.

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SOUTHERN TEXTILE BULLETIN

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VOL. 32

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Accident Prevention Depends on Overseer's Vigilance

IN the plant of J. & P. Coates (R. I. Inc., of Pawtucket, R. I., recent and remarkable successes have been attained in a carefully planned safety campaign. This success has resulted in an actual saving to the company and to the employees. Concerns that are about to organize for safety (and those that are already organized) I believe should profit by the experience of others and I shall show what I believe to be the best form of safety organization and how it should be supported. Textile hazards are less numerous and of a lesser degree than in many other industries. However, a relatively large number of serious accidents occur. It seems to me that textile manufacturers can and will, at a slight cost, prevent fully 75 per cent of all lost time injuries as soon as they realize that there is an actual saving.

When considering why accidents should be reduced and how to reduce them, it is well to pass the grim question of pain and suffering, as that we know and deplore, and endeavor to find a way to prevent injury as a sound policy of good business practice. Preventing injuries to industrial employees is a problem not easily solved in a single application of bulletins or speeches, but, as in golf, you must hit the ball and study its course down the fairway or across the green, and the next time you hit show improvement in your game.

Comparing a safety movement to the Roman arch, a foreman stands above as the keystone—on one hand absolutely responsible to the management for the prevention of accidents, while on the other hand the employees look to him for advice, for them he is the management.

In any industry where production is systematically and economically arranged, the slightest break in process, causing spoiled goods, loss of production, etc., is reflected upon the good management of the department. I think I am fully justified in saying, also, that any accidents involving lost time in a department reflected in like fashion upon its management, and if proper instructions and safeguards have been provided by the plant management, then the foreman should be as fully criticised in the latter case as in the first.

In order to prevent injuries to his workers the foreman must de-

Benjamin F. Griffith, of J. & P. Coates, Inc., Pawtucket, R. I.

velop public opinion against accidents until carefulness becomes a habit and he must instill serious interest and enthusiasm in the safety movement. New workers must receive from him thorough instructions in machine operations and general conduct relative to safety. This must be followed up during the new worker's period of training.

Clean Room Inspires Carefulness.

In recently reviewing accident causes in the textile industries, I noted a large number of cases that might be directly or indirectly caused by poor housekeeping, which is all too frequently the cause of accidents. I believe that the clean, orderly room inspires carefulness on the part of the workers, as all persons have a certain amount of unconscious adaptability which raises or lowers them to the standard of their associates or associations. Good housekeeping is part of the foreman's job, and if he can maintain his department in good order he not only prevents accidents but will improve sanitary conditions and further assist in the freer movement of articles in the course of manufacture. Good housekeeping often opens our eyes to improved systems and more economical department control.

The man who advances to a foreman's position has been picked because of his interest in his work, his ability as a leader and his knowledge of processes. He gains his position because in the judgment of the plant management, he has the equipment for the job. To the plant management, then, he looks for his instructions. The keystone of accident prevention is the foreman, but the responsibility of the management in a safety campaign cannot be overestimated. When the plant management says, "Mr. Foreman, accidents must be prevented—it is part of your job," then accident rates will start downward.

Up to this point I have endeavored to show that part of the safety direction of a plant which applies to the manufacturing organization. Besides the work of the foremen and managers in preventing accidents, there should be a safety committee organization. This organization should be apart from direct

manufacturing control and its functions so carefully worked out that there will be a maximum effect from a most economical arrangement. I have found, after developing several forms of committee organizations, that the most satisfactory is one that is so arranged as to accomplish a two-fold purpose.

First, to carry up from the employees suggestions regarding safety. Second, to carry down from the safety supervisor and management proper safety publicity and instructions.

In the individual departments of our plant we have what is known as the "Workers' Safety Committee," composed of representatives from each section. This committee meets with a chairman, who in turn is a member of the safety council. The safety council is composed of the general plant managers; the plant doctor, the head nurse, the employment manager, the workers' committee chairman and the safety supervisor. Thus you see that every department and every position is represented in the council. This, I find, is the most simple and economical form of committee organization, applicable, of course, to our industry.

At this point the safety supervisor steps in as a tying band to hold this organization intact and to provide for its smooth and sure functioning. Here we find him as a leader to the workers and an adviser to the management, confident in his convictions and persistent in his work, a man who in justice to himself, to the management and to the workers does not accept nor try to accept any responsibilities for successes. The position he holds is between the plant management and the workers, and it is in this advisory capacity that the safety supervisor must act.

Foremost among the duties of the supervisor is the problem of keeping the committee active at all times and not allowing interest to wane. His ability to do this largely depends on his records and the influences he is able to bring to bear.

The records and reports of the safety committee should be carefully compiled. In the first place, the workers' committees should be required to submit reports of their

monthly meetings with the safety supervisor. I have found it well to have reports of this type made on a standard form, outlining the procedure of the workers' committee meeting. This report should include such items for consideration as mechanical precautions, employees' interest, suggestions for safeguards, etc. When this is received by the safety supervisor the meeting of committee is checked off for the current month on his record book. At the end of each month the safety supervisor admits to the general manager, a report of those committees that have not made a report, and if the committees have not met they must then give proper reason to the general manager. This assures a regular monthly meeting of each department workers' committee. From each reports the safety supervisor may write off, on individual cards, all safety suggestions. These suggestions should be investigated and the cards kept active until the necessary work is done or the suggestion is rejected.

Safety Supervisor's Duties.

The safety supervisor should supply the workers' committee with statistics and information for the successful conduct of their meetings and for their drive for fewer accidents among the workers. In our plant a condensed copy of the first aid report is forwarded monthly to all committees, showing details regarding accidents, such as:

1. Lost time cases and causes by departments.
2. Lost time by departments for month.
3. Lost time by departments for current year to date.
4. Frequency and severity rates.
5. Infection cases.

In addition to this a chart is made up for use at the meeting and for bulletin publication showing the comparative standing of each department for the current year and it is of the greatest value in arousing interest in safety, as it is absolutely fair to all. The chart shows the percentage of increase or decrease in lost time for each department, sets its own rate, which is indicated in all cases by the zero line. The comparison of departments is on the percentage of increase or decrease in their own previous records. You will readily see that this eliminates the question of
(Continued on Page 42)

The Care of Motor Insulation*

By C. W. Falls, Industrial Engineering Department, General Electric Co.

MODERN methods of design and construction have made the electric motor one of the least complicated, and most dependable, forms of machinery in existence, and thereby made the matter of its maintenance one of comparative simplicity. This statement should not, however, be taken to mean that proper maintenance is not important; on the contrary, it must be given careful consideration if the best performance and longest life is to be expected from the motor. The two major features, from the standpoint of their effect upon the general performance of the motor, are those of proper lubrication and the care given to the insulation, because they concern the most vital, and probably the most vulnerable, parts of the machine. The former will be discussed here only with regard to its relation to the maintenance of the insulation.

Lubrication.

The designs of bearings and bearing housings of motors have been wonderfully improved in the last few years. The point has now been reached where bearings of modern motors, whether sleeve, ball, or roller, require only very infrequent attention.

This advance in the art is not yet fully appreciated, for, while there may have been some necessity for more frequent attention in the case of older designs with housings less tight than on modern machines, oilings and greasing of new motors is quite often entrusted to uninformed and careless attendants, with the result that oil or grease is copiously and frequently applied to the outside as well as the inside of bearing housings. Some of the excess lubricant is carried into the machine and lodges on the windings, where it catches dirt and thereby helps in the ultimate failure of the insulation.

The modern designs provide for a plentiful supply of oil or grease being held in dust-tight and oil-tight housings. If the proper amount of a suitable lubricant is applied before starting, there should be no need to refill the housings for several months, even in dusty places. Infrequent though periodic and reasonable attention to modern bearings of any type will tend toward longer life of both bearings and insulation.

Care of Insulation—Motors in Transit, in Storage, or Idle.

Motors should be stored in a dry clean place until ready for installation. Heat should be supplied, especially for larger high-voltage machines, to protect against alternate freezing and thawing. This is equally applicable to spare coils.

Motors that have been long in transit in moist atmosphere, or have been idle for an extended period without heat to prevent the accumulation of moisture, should be thoroughly dried out before being placed in service. Machines may also become wet by accident, or they may "sweat" as a result of a differ-

ence in their temperature and that of the surrounding air, just as cold water pipes "sweat" in a warm, humid atmosphere. This condition is, of course, very injurious and should be prevented, particularly in the case of large or important motors, by keeping them slightly warm at all times. Current at a low voltage can be passed through the windings, electric heaters can be used, or even steam pipes may be utilized for protective purposes. In the case of extended idle periods, tarpaulins may be stretched over the motor and a small heater put inside to maintain the proper temperature.

Drying Out.

If a motor has become wet from any cause whatever, it should be dried out thoroughly before being operated again. The most effective method is to pass current through the windings, using a voltage low enough to be safe from the winding in its moist condition. For 2200-volt motors, 220 volts is usually satisfactory for circulating this drying-out current. Thermometers should be placed on the windings to see that they are being heated uniformly. Temperatures should not exceed 90 deg. C (Class A insulation.) Applying the heat internally in this manner drives out all moisture, and is particularly effective on high-voltage motors, where the insulation is comparatively thick.

Heat may be applied externally by placing heating units around or in the machine, covering the whole with canvas or other covering, and leaving a hole at the top to permit the escape of moisture. In doing this, it is essential that there be a circulation of warm air over all the surfaces to be dried. The air should be allowed to escape as soon as it has absorbed moisture. Therefore, the heaters should be so placed and baffles so arranged as to get a natural draft; or small fans may be used to force circulation. Twelve-inch fans set to blow air across the front of "glow heaters" and then into the lower part of a machine from opposite sides, and so on up around the windings and out the top, will produce surprising results. The temperature of the winding should not be allowed to exceed 100 deg. C. for Class A insulated motors. Smaller machines may conveniently be placed in ovens, the same temperature limits being observed.

Insulation Resistance Tests.

The time required for complete drying-out depends considerably on the size and voltage of the motor. Insulation resistance measurements should be taken at intervals of four or five hours until a fairly constant value is reached. This value should at least equal the recommended A.I.E.E. standard, which is

$$\text{Megohms} = \frac{\text{Voltage}}{\text{Kv-a.} + 1000}$$

The insulation resistance of dry

motors in good condition is considerably higher than this value.

The more convenient way to measure this resistance is through the use of a "Megger," although if a 500-volt d-c. source is available, readings can be taken with a voltmeter. The ungrounded side of the system should be connected to all the motor terminals through the voltmeter, the opposite or grounded side of the system should be connected directly to the motor frame. The insulation resistance is found by

$$R = r \left(\frac{E}{V} - 1 \right)$$

where R=insulation resistance in ohms

E=line voltage (d-c.)

V=voltmeter reading

r=resistance of voltmeter.

In using the voltmeter method the connection to the frame should always be made through a fuse of not more than 10 amperes in size. The circuit should be tested and the side showing a complete or partial ground then connected to the frame through the fuse.

Obviously the insulation varies over a wide range depending upon moisture, temperature, cleanliness, etc., but it is a good indication of the general condition of the insulation and its ability to stand the operating voltage. Such readings should be taken before a high-potential test, to determine whether the insulation is ready for such a test, and afterwards to make sure that the high potential has not injured the insulation.

High-potential Tests.

High-potential tests should be made after drying out, or after repairs, to determine the dielectric strength of the insulation. New windings should successfully stand a high-potential test of twice normal voltage plus 1000. There is some disagreement as to the proper value to use for motors that have been in operation for some time, but it is reasonable to assume that, after thorough cleaning and drying, the winding of a used motor should stand 150 per cent of normal voltage for one minute.

Small high-potential testing sets are available for such work and are of such capacity that very little damage will result from a breakdown during the test.

Periodic Inspection

A systematic and periodic inspection of motors is necessary to insure best operation. Of course, some machines are installed where conditions are ideal, where dust, dirt, and moisture are not present to an appreciable degree, but most motors are located where some sort of dirt accumulates in the windings, lowering the insulation resistance and cutting down creepage distances. Steel mill dusts are usually highly conductive, if not abrasive, and lessen creepage distances. Other dusts are highly abrasive and actually cut

the insulation in being carried through by the ventilating air. Fine cast-iron dust quickly penetrates most insulating materials. Hence the desirability of cleaning the motors periodically. If conditions are extremely severe, open motors might require a certain amount of cleaning each day. For less severe conditions weekly inspection and partial cleaning is desirable. Most machines require a complete overhauling and thorough cleaning about once a year.

For the weekly cleaning the motor should be blown out, using moderate pressure, dry, compressed air (of about 25 to 30 lb. per sq. in. pressure). Where conducting and abrasive dusts are present, even lower pressure may be necessary, and suction is to be preferred, as damage can easily be caused by blowing the dust and metal chips into the insulation. On most d-c. motors and large a-c. motors the windings are usually fairly accessible, and the air can be properly directed to prevent such damage.

On the larger a-c. machines, the air ducts should be blown out so that the ventilating air can pass through as intended.

On large machines, insulation resistance readings should be taken in the manner indicated earlier in this article. As long as the readings are consistent the condition of the insulation would ordinarily be considered good. Low readings would indicate increased current leakage to ground, or to other conductors, owing to one of perhaps several causes, such as deteriorated insulation, moisture, dirty or corroded terminals, etc.

Cleaning.

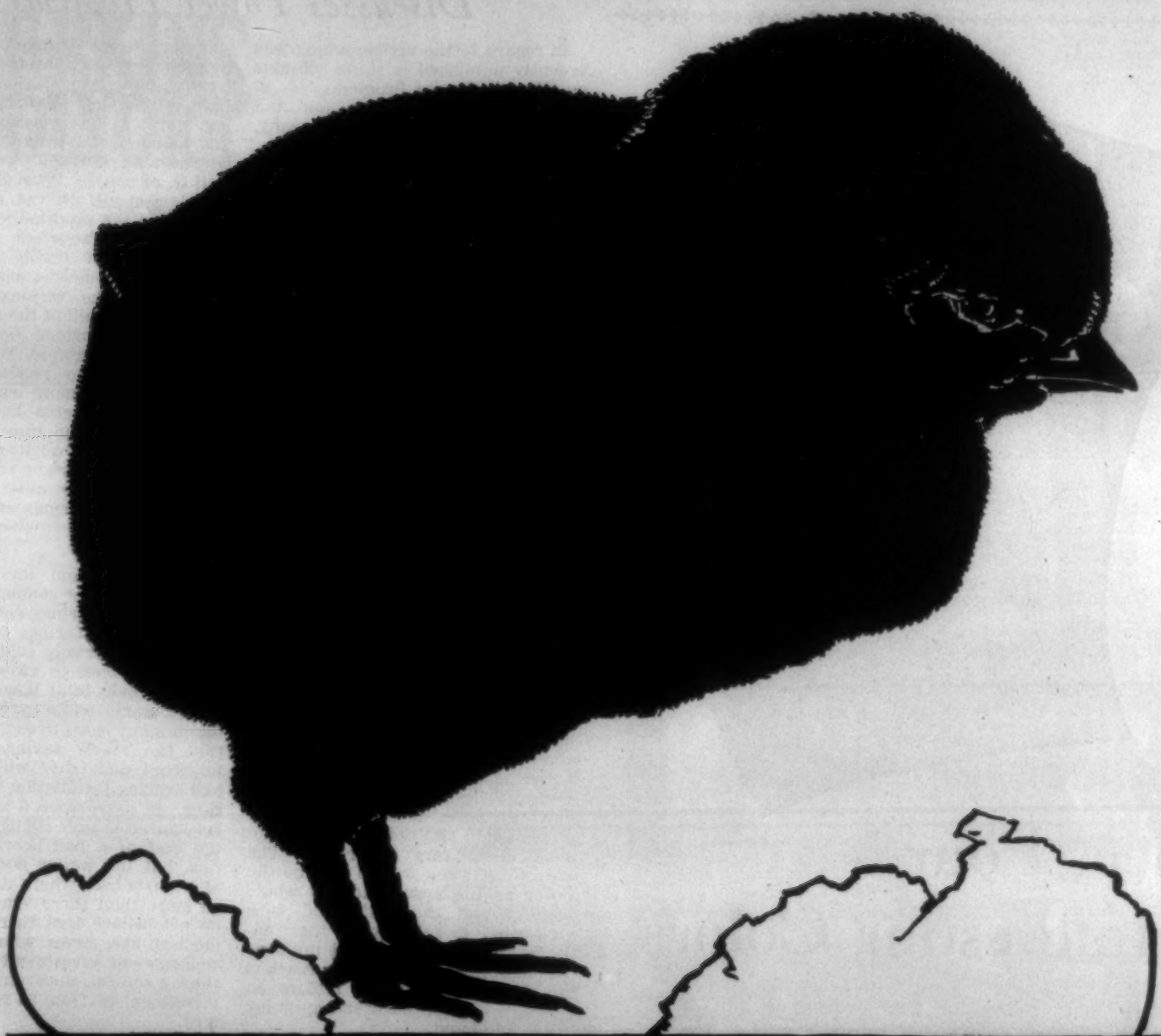
About once a year, or oftener if conditions warrant, motors should be overhauled. Smaller motors, the windings of which are not particularly accessible, should be taken apart.

First, the heavy dirt and grease should be removed with a heavy, stiff brush, wooden or fibre scrapers, and cloths. Rifle-cleaning bristle brushes can be used in the air ducts. Dry dust and dirt may be blown off, using dry compressed air of 25 to 30-lb. pressure, taking care to blow the dirt out from the winding. As stated before, if the dirt and dust is metallic, conducting, or abrasive, air pressure may drive the material into the insulation and damage it. Hence, for such conditions, pressure is not so satisfactory as suction system. If compressed air at low pressure is used, care must be taken to properly direct it so that the dust will not cause damage and will not be pocketed in the various corners.

Grease, oil, and sticky dirt are easily removed by applying cleaning liquids like carbon tetrachloride (Pyrene, Carbona), gasoline, or naphtha. All of these liquids evaporate quickly and, if not applied too generously, will not soak or injure the insulation. Carbon tetrachloride is best and is recommended because it is non-inflammable.

(Continued on Page 43)

*From General Electric Review.

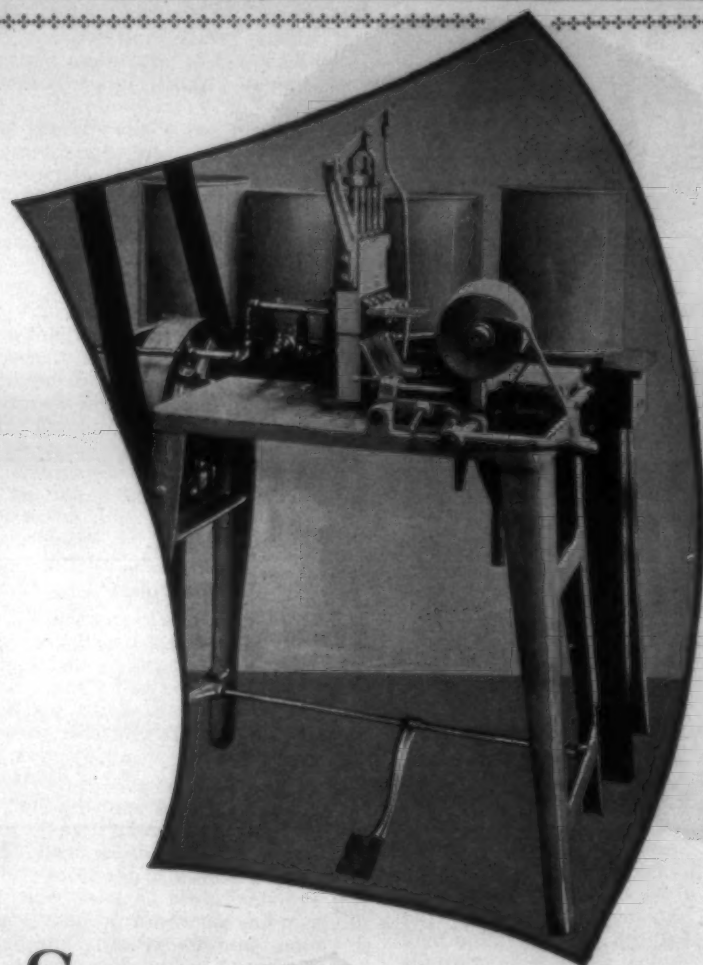


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Discusses Power Problems

In regard to the article which was recently published in these columns on "Textile Power Problems," C. B. Sawyer, sales engineer for the Transmission Ball Bearing Company, writes as follows:

"There can be laid no hard and fast rules as to whether electrical power is preferable in certain department of any certain mill. Local—and varying—conditions must be considered in every case to determine what particular combination is best in the mill in question.

"Years ago, in the earlier stages of the textile shafting, pulleys, belts, and, sometimes, gears, were utilized to transmit the power from the prime movers to the productive machinery. Mills were usually designed with a view to arranging them as well as possible around the water wheels or engines. The consequent friction loads, and the losses therefrom, were enormous but, when thought of at all, were regarded as inevitable. However, labor and power were cheap so that the matter did not appear to be particularly important, especially so as there did not seem to be any remedy for waste.

"Then the electrical motor appeared upon the scene, gradually increasing in favor and back by excellent advertising and sales propaganda. Motors enabled the textile mills to discard their heavy main drives and long distance mechanical power transmission and reduced their frictional losses very materially. The natural tendency was to look on the motor as the answer to the whole problem and the mills vied with each other in splitting up their entire systems into as small units as possible until some of them reached the stage of individual motors on every picker and card and spinning frame and loom.

"This was all very lovely until they began to discover that their manufacturing costs had advanced materially, due to the much higher costs of the electrical equipment, motors, wiring and switchboards, over mechanical transmission machinery. Likewise, operating and maintenance expenses commenced to show alarmingly high totals every year.

"At this time the various anti-friction bearings made their initial appearance as a possible factor. Some of the more farsighted mills experimented with different combinations and found that it was entirely possible to operate shafting with the former frictional losses practically eliminated. This put the matter in an entirely new light and made it advisable to do away with the small motors with their attendant low efficiency. In this way modern group driving was born.

"By the practical elimination of bearing friction, due to the use of ball bearing hangers, a very large proportion of the power generated by the motors can be transmitted to the machines, with a lower total loss than where individual motors are used. Modern practice is trending more and more to this arrangement

—larger groups of machines, larger motors, averaging around 5 horse power, ball bearing hangers, and light, high speed shafting and beltting. This is the most satisfactory and economical drive known today.

"The while trend of today's textile mill is, of course, towards ball bearing equipment, on the shafting as well as on the machinery itself. Ball bearing manufacturers, as well as the makers of textile machinery, are constantly developing new applications for the various machines. An up to date mill of the present day would not consider operating its pickers, for example, without ball bearings on the beater and fan shafts and, in many cases, on the apron. Experiments have been in progress for some time with anti-friction bearings on looms and the time is at hand when all ball bearing manufacturers must be prepared to supply bearings and housings for all makes of twistors and spinning frames.

"And throughout the South, the mills which have conducted careful tests of ball bearings versus the old time friction bearings on the line-shafting universally report a saving of from fifteen to twenty-five per cent of their total power. This is a very worth while saving, amounting in many cases to such an amount that the yearly savings in power, lubricant and labor will pay for a ball bearing installation in one year's time. In some cases, a longer period is required to save enough to pay for the cost of a ball bearing installation, but the writer does not know of a single case where it has required more than three years. And we do not believe that there are many modern executives who would not welcome an investment which will show a certain, sure return upon the investment of from 33 1-3 to 100 per cent.

"In addition, the modern ball bearing hanger is absolutely drip proof. There is no possibility of oil or grease dripping from the bearings upon goods either in process or finished. This removes a very serious possibility of loss which always hung over the mill superintendents' head (no pun intended) in the old days.

"And so, the writers years of experience with textile mill power problems leads him to concur most heartily with your correspondents' conclusions, except that we would carry the solution even further and advise the use of ball bearings, in this way following the lead of the most progressive Southern mills who have found in this arrangement—group driving, larger units, and ball bearings—a trinity which brings about that which are all striving for, lower manufacturing costs and larger profits."

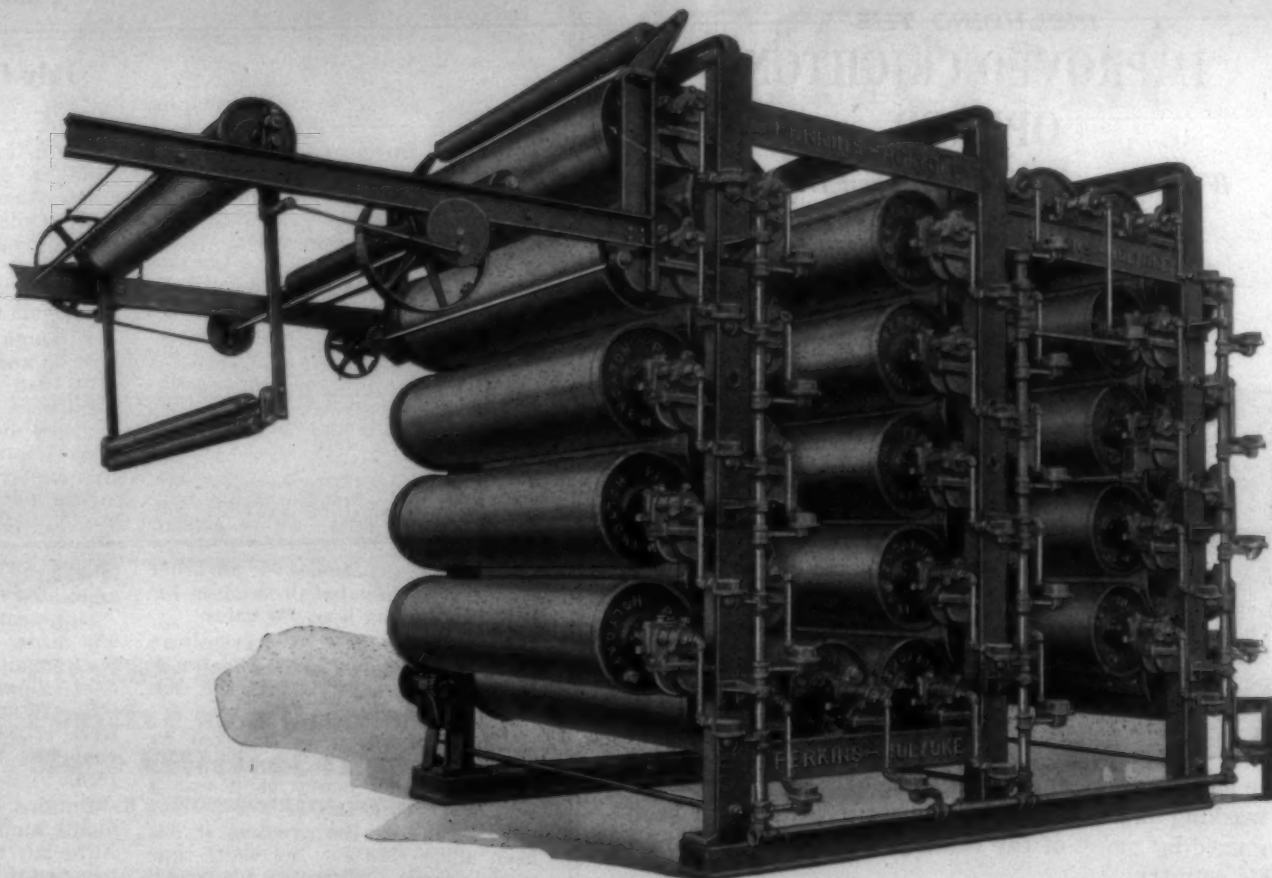
Looking Toward the Future

The Eastern Carolina farmer who has set out 14,000 fig trees is evidently figuring on the worse coming to pass in the matter of feminine clothes.—Charlotte News.

**PERKINS
HOLYOKE**

Vertical Drying Machine

An outstanding development in Textile Drying Machinery
Greater Drying Capacity—No Soilage—Always on the job.



Perkins Vertical Drying Machine has been engineered for added strength and long service, high efficiency with minimum amount of power.

You will be interested in the specifications for this machine which include $3\frac{1}{2}$ lb. seamless drawn copper tubes, re-inforced with three inner expanding rings. A truer running and more uniform cylinder of much greater strength and less tendency to dent than the usual hard rolled copper with braised joint.

Timken Roller Bearings in substantial housings. Machine cut cast iron driving gears. Independent driving shafts for

each successive tier of cylinders driven by roller chain drives of ample capacity.

Perkins Vertical Drying Machine gets you away from soilage because of the protection given the face of the cylinder and the use of anti-friction bearings. It is a light running machine built for long service and without the more or less frequent shut-downs which cut so deeply into the matter of quantity production.

Illustration shows Perkins Standard 32-Cylinder Vertical Drying Machine equipped with folder, complete with pulley.

B. F. Perkins & Son, Inc., Holyoke, Mass.

Southern Representative: Fred H. White, Independence Bldg., Charlotte, S. C.



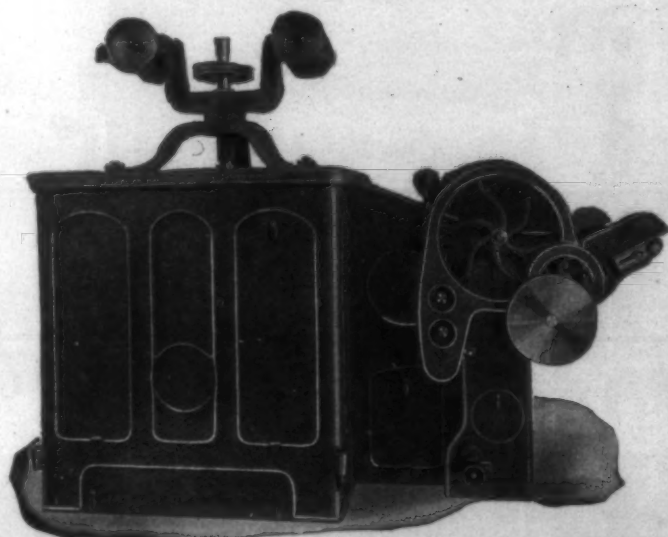
TRADE MARK REG. U.S. PAT. OFF.

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Cotton Opening Machinery
INCLUDING THE
**IMPROVED CRIGHTON
OPENER**

With Cage Section and Apron Delivery



The superior cleaning qualities of this type of Opener, for working medium and low-grade cottons, have been recognized by many of the leading cotton manufacturers in this country.

In this machine, the fibre is not subjected to the harsh treatment of beating from the Feed Rolls, and a larger percentage of foreign matter is removed from the cotton than by other methods.

Installations can be made with one, two or three Crightons in a line.

We build these machines with Spiral Gear, Direct Belt or Vertical Motor Drive when desired.

Write for Descriptive Bulletin and List of Users

H & B

American Machine Co.

Pawtucket, R. I.

Southern Office

814-816 Atlanta Trust Co. Bldg.

Atlanta, Ga.

Government Estimates Crop At 13,492,000 Bales

Washington, D. C.—A cotton crop of 13,492,000 equivalent 500-pound bales is indicated for this year, the Department of Agriculture announced, placing the condition of the crop on August 1 at 69.5 per cent of a normal.

The August 1 condition of the crop, which compares with 69.8 per cent a year ago, 65.6 in 1925 and 67.4 in 1924, indicated an approximate yield of 156.8 pounds per acre, compared with 181.9 pounds in 1926 and 155.7 pounds, the average for the last five years. The total indicated produced production is based on the assumption that the area abandoned this season will be equal of average of the last ten years, leaving, from the 42,683,000 acres in cultivation July 1, an area of 41,139,000 acres for harvest this year. The final out-turn of the crop, the department said, will depend upon whether the various influences affecting the crop during the remainder of the season are more or less favorable than usual. Last year's crop was 17,977,374 bales, that of 1924 was 16,103,679 bales and in 1923 it was 13,627,936 bales.

The condition of the crop on August 1 by States was:

Virginia, 75; North Carolina, 78; South Carolina, 66; Georgia, 65; Florida, 71; Missouri, 61; Tennessee, 69; Alabama, 70; Mississippi, 68; Louisiana, 64; Texas, 69; Oklahoma, 75; Arkansas, 68; New Mexico, 83; Arizona, 85; California, 90; all other States, 67. Indicated production for lower California is 62,000 bales.

The Department of Agriculture today said the outstanding factor in the situation this year is the boll weevil menace.

"The infestation is reported by correspondents to be approximately three times as heavy as it was a year ago," said the crop reporting board, "and is the greatest it has been since 1923 for the same time of the season. Allowance for weevil damage made the crop reporting board in arriving at its production forecast, assumed average weather conditions during the remainder of the season, and prospects may be expected to improve or decline accordingly as the weather is more or less favorable for weevil propagation during the remainder of the season than average. Hot, dry weather during the remainder of the season, August and the first half of September, would tend to lower the weevil hazard and correspondingly enhance the production outlook, but with a preponderance of cloudy days and any considerable amount of rain during this period, the menace would tend to become increasingly serious. With the present extent of weevil infestation, damage will no doubt be greater this year than in any of the past three years, which were years of light damage, but possibly less than during the four years 1920 to 1923 inclusive, which were years of heavy damage. Analysis of data on damage due to weevil gathered during the past eighteen years shows no instance where extreme weevil damage occurred in a year immediately suc-

ceeding year of relatively light damage."

"The cotton hopper, which was very troublesome a year ago," the report said, "is causing no damage this year. Red spider is reported only in North Carolina and Tennessee."

"Except in the Southwest, where drought was serious early in the season, stands are fairly good and the plants have made good growth but have not fruited as yet."

"In North Carolina the crop is late from cold, dry weather early in the season. Rapid progress has been made in the last two weeks and in spite of weevils and red spiders, growers appear to be optimistic."

July Cloth Production Higher

Production of standard cotton cloth in July was 24.5 per cent greater than during that month last year, while stocks declined 5.4 per cent during the month, according to yardage reports just compiled by the Association of Cotton Textile Merchants of New York.

Although sales were less than production and 21.2 per cent less in volume than they were in July, 1926, they were 20 per cent larger than during June, 1927. A large consumption of cotton goods is indicated by shipments which continue to exceed production.

Sales during the four weeks of July amounted to 215,730,000 yards, or 94.2 per cent of production which amounted to 229,097,000 yards.

Shipments amounted to 239,193,000 yards, or 104.4 per cent of production, an increase of 15.7 per cent over shipments in July, 1926.

Stocks on hand at the end of July were 177,527,000 yards, or 38.4 per cent less than they were July 31, 1926.

Unfilled orders at the end of the month amounted to 457,883,000 yards. Although this was a decline of 4.9 per cent during the month it was an increase of 83.2 per cent over the corresponding date a year ago.

Combined reports for the first seven months this year show that production has been 14 per cent greater in this period than it was during the first seven months of 1926. Sales and shipments have been 29.2 per cent and 20 per cent greater respectively than during the corresponding period last year.

The reports compiled by the association include yardage statistics on the production and sale of more than 200 classifications of standard cotton cloth and represent a large part of the total production of these fabrics in the United States.

The reports for July, 1927 and July 1926 may be summarized (000's of yards omitted) as follows:

	1926	1927	Per cent of change
Product'n	184,033	229,097	+ 24.5
Sales	273,900	215,730	- 21.2
Shipm'ts	206,676	239,193	+ 15.7
Stocks on hand			
July 1	310,825	187,623	- 39.6
July 31	288,182	177,537	- 38.4
Unfilled orders			
July 1	182,708	481,346	+ 163.4
July 31	249,932	457,883	+ 83.2

Every Machine

*can be Driven
with this*

Efficient Drive



**Flexible as a Belt—
Positive as a Gear—
More Efficient than Either**

98.2% Efficient [on actual test]

TRANSMITS power without slip, maintains positive velocity ratio, is flexible, quiet, smooth running, operates on short or long centers, and is not affected by atmospheric conditions—heat, cold, dampness or oil.

Made in sizes from $\frac{1}{4}$ to a 1000 H. P. and over. Drives $\frac{1}{2}$ to 15 H. P. carried in stock by distributors in many cities. Send for a copy of our Silent Chain Drive Data Book No. 125 and also copy of Stock List No. 725.

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Birmingham, Ala., 229 Brown-Mark Bldg.	New Orleans, La., 504 New Orleans Bank Bldg.	
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LINK-BELT

SILENT CHAIN DRIVES

NATIONAL SULFUR ORANGE G CONC.

AN addition to the National's extensive line of Sulfur Dyes, producing orange shades of yellowish tone. Characterized by excellent solubility, good level dyeing properties, and good fastness to both washing and light.

Applicable to cotton in all forms, either as raw stock or yarn in all types of modern dyeing apparatus, or as piece-goods in jigs and continuous machines.

National Aniline & Chemical Co., Inc.
40 Rector Street, New York, N. Y.

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PROVIDENCE	CHICAGO	MONTREAL
HARTFORD	CHARLOTTE	TORONTO

NATIONAL DYES



Watching the Other Fellow Work

By The Visitor

(Continued from last week)

Everything being so up-to-date in the repair department, I decided I had better get a line on the way they manage the supply room, so it was not long before I was rising into that fellow's business.

When I reached the supply room, it was at the hour that everybody got what supplies they needed for the day, and every department in the mill seemed to be represented. I noticed they had quite a bit of system in practice here. Before any of the men could get a new part, they had to present the broken or worn part, along with the requisition from the overseer. The supply clerk examined all broken or worn out pieces and any that looked like they could be repaired were sent to the machine shop for a final inspection from the master mechanic. The idea was not to put anything in the scrap pile that could be repaired at a nominal cost. I also found that they had a very good system for charging the different departments with the supplies they used. Every item of expense for any particular shipment of supplies, such as freight or express, drayage, telegrams or telephone calls, was prorated to the purchase price of each article in the shipment, and the departments charged with the actual cost of each piece delivered at the mill. This made it possible to get up a cost sheet that stated facts as they really are. I am not much of a clerical man, or probably I could have learned more, but being interested in the operation of the machinery I decided I would not spend any of my time around the office, so I went in search of the carding department.

What I Saw Around the Cards.

When I reached the cards and drawing frames it did not require very close observation to see the difference that careful work in the picker room makes in the running of the cards and I was very much surprised when I could not find any ends down and waste running on the floor, or laps running out or running in double, which is usually the case in a good many card rooms. But I soon found out why these everyday occurrences were not prevalent here.

To start with, they were getting good even laps, and they were putting them to a good use, and not railroading them through the cards just to get them off their hands and pass them to the other fellow. I have always been in favor of giving the cards a chance to do their work but since I have seen the results of having plenty of cards and carding slow I am thoroughly convinced that there is no economy in pushing the cards, and much less in letting them run out of order, or in need of repairs. The cards was a well known make of the revolving flats type, of which I thought I was very familiar (but later found out that I was not) and equipped with the latest thing in vacuum strippers. There were 100 hundred 40-inch cards and they were stripped three times per day

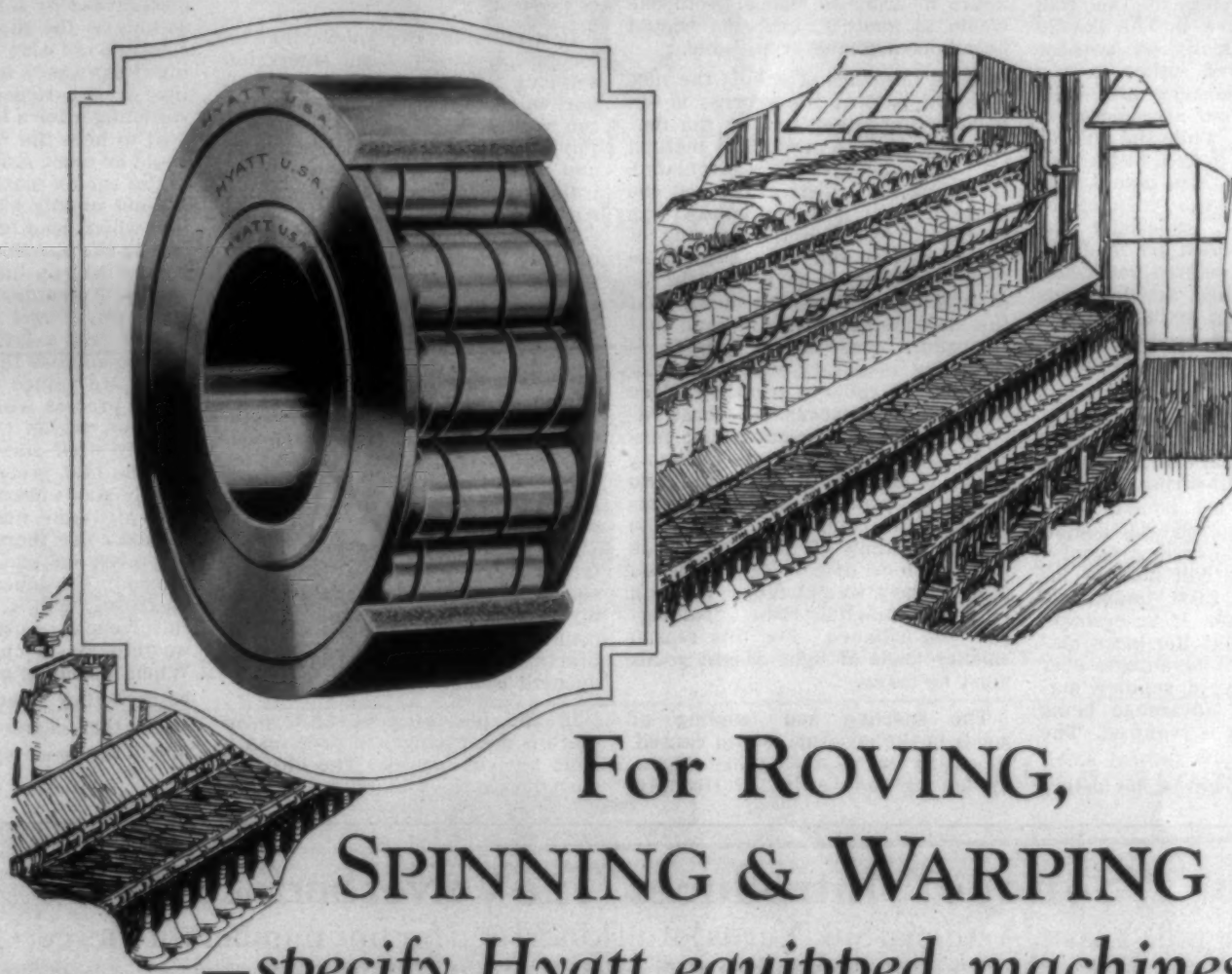
by one man who did not have anything else to do but look after the cleaning of the tanks, and keep the vacuum pump clean and oiled properly.

The cards were doing 125 pounds per day of 62 grain sliver, with a doffer speed of about 9.00 revolutions per minute, and were turning out work that was a credit to the man in charge of the room. I noticed in particular that a great deal of bad work was avoided by the system they had in lapping the cards. Instead of letting all the laps run out at or near the same time, the operator changed a few of them at a time, which avoided making a good deal of singles and doubles that would damage the work, and also give the head tender a chance to keep the ends up, and not make but very little waste. This certainly beats the old way of piecing out and making the laps run out at the same time, which is the usual practice in the majority of the mills, and which no doubt is one of the reasons why they have such a variation in their weights and numbers. As it stands to reason that it is impossible to put from 30 to 40 laps on a set of cards in a very short period of time without having some kind of accident that will either damage the work or choke several of the cards and damage the clothing, one or the other. I was not around the cards very long before the boss carder came along with his notebook and pencil and a bunch of tags in his hand, and naturally I wanted to know what the idea was. He told me if I would follow him I would find out, and we commenced to inspect the cards from bottom to top, and in a short while we knew which cards were out of fix and what was the matter with them. We found several little things out of order such as comb too low, lick-in belt too slack, cleaning brush on flats stopped, one card with dirty flats, and one card making cloudy work. On another card the comb box was leaking oil and the stripper comb had worked down. Everywhere anything was found wrong a tag was hung on and I was informed that it stayed there until the trouble was remedied and a section inspection made. Now I just got to thinking about the matter and wondering if so many things could be found wrong with the cards in a mill being run up-to-date, what would I be liable to find wrong with ours when I inspected them. So when I got back home I got me some tags and went to work and even if everybody thinks I am going crazy if the tags do not give out I will soon have quite a bit of overhauling going on.

A Few Minutes at the Drawing Frames.

As usual they had other surprises awaiting me at the drawing frame. I did not find the calender roll gears grinding and the top rolls jumping and the frame stopping every few seconds from singlings in the backs

(Continued on Page 38)



For ROVING, SPINNING & WARPING

—specify Hyatt equipped machines

THOUSANDS of Hyatt bearings have been applied to spinning frames and twisters the world over. The appeal for economical production is universal—it goes hand in hand with the demand for better bearings.

Hyatts on the all important cylinder shaft maintain uniform spindle speeds—establish smooth, uninterrupted operation.

Their positive rolling motion lessens the starting torque and running friction. It results in lower power consumption—freedom from maintenance and saving in lubrication cost. Mill men who have

conducted their own tests report 10% net power saving on Hyatt equipped frames—and 85% saving in lubricant.

The sturdy Hyatt rollers do not wear, even when subjected to the one way pull of tape drives. They retain the perfect alignment as first set up by the fixer, and tend to reduce vibration.

On roving frames and warpers the same high grade service is evident, in Hyatt equipped mills.

Even though your frames are not now Hyatt equipped, you may easily obtain such advantages by applying Hyatts in simple replacement housings.

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ROLLER BEARINGS

PRODUCT OF GENERAL MOTORS

Defects in the Dyeing and Bleaching of Knit Goods

KNITTED fabrics are colored in three different ways, as dyeing the raw stock or yarn, dyeing in the garment and dyeing in the roll, says A. F. Musgrave, in *The Textile American*. Practically all sweater fabrics are colored either in the stock or yarn, hosiery and full-fashioned underwear are colored in the knitted fabric, while the bulk of cotton underwear is dyed in the roll. Raw stock dyeing also comes into consideration for the coloring of cotton underwear, especially for those Egyptians which are made by the admixture of colored and white cotton. While this article deals mainly with dyeing in the roll, the same troubles which are here enumerated will be found more or less in the other methods of dyeing.

Machines for the coloring of cotton knit goods in the roll are built in sizes ranging from eight to twenty strings. The eight-string machine will hold from 400 pounds light weight goods to nearly 800 pounds of heavy ribbed material. A twenty-four roll machine will hold in the neighborhood of 2,000 pounds of heavy ribbed goods. It is, perhaps, needless to say that the large machine offers several advantages over the same capacity in smaller machines, one such advantage being that less matching is required. The choice of a large or several small machines will, however, be deter-

mined by the variety of colors which the mill is putting out. It costs quite a little to clean out a kettle in order to change from one shade to another, and this should be avoided whenever possible.

In all branches of dyeing the mechanical part of the process is extremely important, and by the mechanical part is meant the method by which the dyebath is circulated. In dyeing knit goods in the roll the dyebath itself is not circulated except as a result of the running of the goods over the reel. At the same time, however, it is necessary for satisfactory dyeing of the goods that the machine runs smoothly and that the cloth does not tangle. It is therefore necessary when entering a batch of rolls to properly place them so as to secure the best results. Where an eight-string machine is used and ten rolls are being taken it is best to place the two double rolls at the ends of the machine. In connection with the proper running of the rolls in the machine it is, of course, understood that a heavy weight fabric will run with less tangling than a balbriggan, for instance. For this reason smaller loads of light weight goods must be taken.

The snarling and tangling of goods in the machine is also caused, especially when dyeing balbriggan, by boiling the kettle too strongly.

It is never necessary when dyeing cotton to have the steam box almost boiling over; a slight boil is all that is needed.

It is not generally known that the manner in which steam enters into a dyeing machine plays an important part in the dyeing. Some years ago the writer was engaged in dyeing Egyptian in a twenty-roll machine, and was much troubled with dark rolls in every batch. The color was not uneven in the rolls, but several rolls were much darker than the others. When the rolls were cut up it was often found that the difference was so great that they could not be used for sleeves of a lighter roll. It was noted that the darker rolls always come from the center of the machine, and a little investigation disclosed the fact that the end holes in the heating pipe had become so enlarged as to heat the center of the kettle much quicker than the ends. For this reason the pipes should be looked at occasionally as the end holes become enlarged very quickly. On a dark shade this difference would probably not be noted, but on a delicate color, like Egyptian, the color is practically all exhausted before the dyebath is boiling.

In the bleaching of knit goods there is great danger of poor results from various causes. The bleacher must be on the lookout for tender-

ness, harshness, stains, chlorine and acid residues left in the fibre, etc. The item softness is often almost disregarded by some bleachers who, as long as the goods are the correct color, do not care for the feel, thinking it can easily be corrected by the use of a softener. While a good softening after a bleach does a great deal to help the feel of the goods it could be made still better by bleaching in such a manner that the goods are not unduly harshened. The factors which tend to make cloth harsh during the bleaching process may all be summed up under one heading—excessive treatment. Do not boil the goods any longer than is necessary, do not use a larger percentage of caustic alkalies than is needed. Knit goods are valued for their softness, and a process which gives good results on woven cloth that is to be heavily sized during the finishing is not the best process for knit goods. Where goods are to be sold as white it is, of course, necessary to produce a good color thereon, but many dyers, even on cloth which is to be colored a delicate shade after bleaching, will give the goods the full bleach. Such a procedure is wasteful as to chemicals and time. When bleaching goods which are to be dyed they should only be bleached to that degree necessary to remove the seed specks. They will

(Continued on Page 40)

"Sonoco" Introduces The Velvet Surface Cone

for Silk Yarns, Artificial Silk Yarns [of all kinds] and for fine numbers of Mercerized, Gassed and Singed Cotton Yarns

Patent Applied For



Artificial Silk wound on the Velvet Surface Cone

NOTE that the full traverse has been retained and all slippage and distortion of fibers eliminated, thus assuring perfect delivery of the yarn.



X-Ray View of Cone Package of Mercerized Yarn for Knitting (Worsted or Merino makes similar package)

Wound on Sonoco "Yarnsaver" Cone



Artificial Silk wound on hard surfaced Cone

NOTE that the yarn has slipped, shortening the traverse, and that the yarn fibers are distorted.

SONOCO PRODUCTS Co., Mfr.

CONES, TUBES AND CLOTH-WINDING CORES

MAIN OFFICE AND FACTORY
Hartsville, S. C.

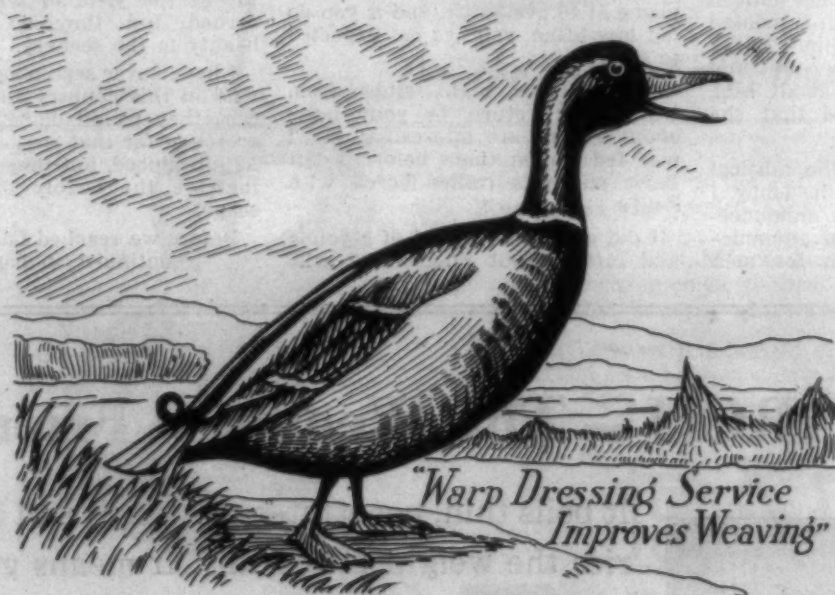
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ARCY is a product used in warp sizing and cloth finishing for converting ordinary thick boiling pearl starch into a soluble form, the solutions of which are transparent and remain fluid at lower temperatures.



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ARCY liquefaction conserves all the original adhesive properties of the thick starch and at the same time produces a starch solution which penetrates, and binds the fibres. Hence the very noticeable reduction in amount of weave room floor sweeps.

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NORFOLK,

::

VIRGINIA

Visiting Europe

By David Clark

(Continued from last week)

Back in Paris on June 23rd, we decided to spend only one day there before crossing over to England.

Mrs. Clark and the young lady with our party persuaded me to go to one of the shops and watch dresses being "modeled," which means being shown on models.

Paris sets the styles of the world in women's clothes and when women get to Paris the smart shops to see the new dresses, in order to make the dresses look attractive, the shops hire as models the most beautiful girls they can find in France and import a few from America.

In a richly furnished room we were seated upon an expensive lounge and at the rate of about one every three minutes the models came out wearing the dresses that were for sale. They knew how to wear clothes to the best advantage and how to carry themselves and the dresses no doubt looked fifty per cent better on them than they would upon the average woman.

The models would enter the room, and coming in front of our lounge, turn around several times in order to show the back and front of the dress and then pass to the next lounge until they had made the circuit of the room, when they would pass out and in their turn would appear wearing another dress or cloak.

The models were easy to look at and most of the dresses were very pleasing, but being a cotton manufacturer, I was mostly interested in the fact, which was confirmed by the lady in charge, that the dresses contained a far greater percentage

of cotton goods than has been the case in recent years.

Models are supposed to dress in the very latest style and it was therefore significant to me that not one of them had on either silk or rayon hose. All of them wore sheer cotton hose of a color that is almost white.

If Paris sets the style and their styles of one season are ours of the next, our ladies will soon be wearing more cotton goods and more fine cotton hosiery.

After viewing the procession of models about three times around, I slipped out and left the ladies, who never tire of looking at new dresses.

That night we went to a musical revue and it was a wonderful production, but the main act was a song and dance by an American negro, as black as the ace of spades, with an unusually attractive white girl of France as his partner. There is social equality in France.

The most popular actress in France today is Josephine Baker, whose mother was a negro washer-woman of St. Louis but whose father was a Spaniard.

Only the day before I had noticed in the Paris Herald, which is printed in English, that Josephine Baker was to marry an Italian count and the remarks she made about him, in an interview, showed that she was a typical negro.

Between the acts of the musical revue, while walking in the lobby, I heard a man making an announcement and told that he was announcing a five-minute show, for men

only, back of the stage. There are no restrictions in France.

The musical revue ran until almost 12 o'clock and then we went to a night club.

I thought we had visited them all before we left Paris for Switzerland, but somebody had discovered another one called Zelli's, and, of course, we had to go.

Night clubs in Paris are almost without exception "frame ups" for the benefit of tourists, who are mostly Americans.

They are respectable and well managed and the ladies of our party always go with you, but it is sometimes really amusing to see the efforts of the managers to arouse enthusiasm and cause everybody to feel that they have been real rough and devilish.

The management sees that there are plenty of girls for the men to dance with and a few well dressed and well behaved lounge lizards who come around and ask the tourist ladies, especially the unattractive ones, to dance with them. When you leave both the girls and the lounge lizards expect tips.

You are expected to buy champagne at \$6 per bottle, and if you do not buy often, you are not expected to stay.

One or two night clubs from which you return to your hotel about 3 a. m. are interesting, but I was fed up on them before I left Paris and was rather bored with Zelli's.

I did get some fun out of a young and rather stout Englishman, who

got gloriously lit and when walking around the room would grab champagne bottles from the ice buckets on the tables of the visitors and run with them, and when he popped the stoppers he would squirt champagne over everybody. He later had to pay for all of it and must have had a big bill, especially as he could not remember much about what he did.

He seemed to take a fancy to me and early in his game sat down by me and asked if I minded his getting drunk next to my table. I assured him that I had no objections and he came back several times to tell me that he was awful drunk but was not going to do any harm.

When we left about 3 a. m. they were putting him out and I judged that his supply of money had become exhausted.

On Friday morning, June 24th, at 10 o'clock, we left Paris for Calais, from which we were to cross the English channel to Dover, England.

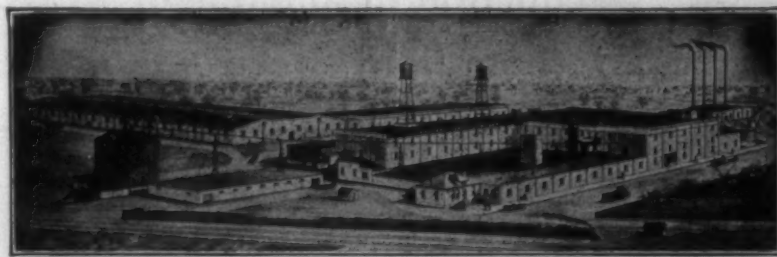
As we passed along through the northeastern section of France the fields were in full cultivation but here and there, especially among the wheat fields, were patches of red which showed that wild poppies were in bloom.

Poppies ruin the wheat fields as far as the yield of wheat is concerned, but they do add much beauty to the scenery.

I have never seen poppies growing wild in this country and it may be that they would damage the grain crop and for that reason should not be introduced, but they certainly do increase the beauty of the landscape.

Before we reached Calais it began
(Continued on Page 38)

VICTOR MILL STARCH — The Weaver's Friend



It boils thin, penetrates the warps and carries the weight into cloth. It means good running work, satisfied help and one hundred per cent production.

We are in a position now to offer prompt shipments.

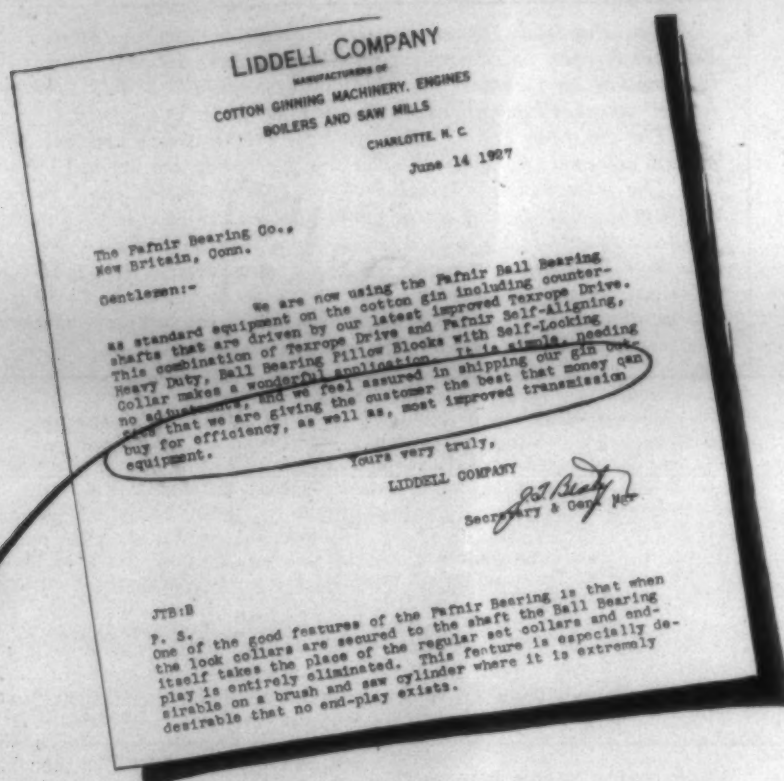
THE KEEVER STARCH COMPANY

COLUMBUS, OHIO

DANIEL H. WALLACE, Southern Agent, Greenville, S. C.

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**“—the best ball bearings
that money can buy”**

Liddell is here referring to the Fafnir Ball Bearings on the Liddell Cotton Gin.

These are of the same wide inner ring design and self-locking collar construction as the Fafnir bearings which are

supplied for beaters, fans, cards, slashers, spinning frames and other textile applications.

For these machines, also, Fafnir Ball Bearings are—“the best that money can buy.”

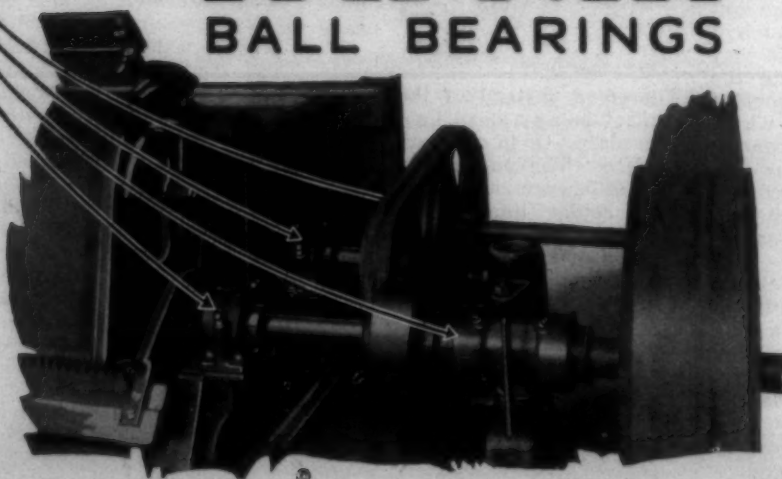
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Practical Discussions By Practical Men

Licker-in Steel Teeth vs. Wire Clothing.

Editor:

Would heavy wire clothing be better for licker-ins on cards, than the use of steel saw teeth as now used? Clothier.

Setting Top Flat Brushes.

Editor:

My brushes do not seem to clean the top flats enough. How should these brushes be set? Anxious.

Duplex Roll Settings.

Editor:

What is considered good roll settings for cotton card Duplex cleaners? Chin.

Cotton Throwing from the Cylinder Side.

Editor:

What makes a card throw out cotton on one or both sides of the cards. This is surely bothering me a heap, but I reckon there is a remedy. Will some of your readers come to my rescue through your Discussion Page, which I enjoy reading so much? Troubled.

Card Ends Drooping.

Editor:

I am having a great deal of trouble with my card ends which droop very much during the hot damp weather prevalent at times. What is a good remedy for this state of things? Oboy.

Answer to O'boy.

Editor:

Please allow me space to suggest to Oboy a remedy for preventing ends from drooping in front of his cards and which he asks about.

If Oboy will carefully examine the web guides which gather the web inside the trumpet hole to the calender rolls he may discover much of the cause for his trouble. He may find that the web guide, and the trumpet hole, as well as the surface of the top of the coiler over which the ends pass before passing through the coiler rolls to the can, that all of these are coated with a black scum which is caked or baked thereon. In hot damp weather this black scum becomes very sticky; so much so that the delicate card web cannot slip along over it. The result is that the end falls back and droops. Another reason why the ends drop and the cards start so hard Monday mornings, is because when the cards are cleaned on Saturdays, the card cleaners leave a film of oil on the web guides, web hole, and on the top of the can

The Practical Discussion Department of the Southern Textile Bulletin is open to all readers whether they are interested in seeking information on technical questions or are willing to help "the other fellow" who has experienced trouble in some phase of his work.

The questions and answers are from practical men and have often proved extremely valuable in giving help when it was urgently needed.

The interchange of ideas between superintendents and overseers develops a great deal of worth while information that results in much practical benefit to the men who are concerned with similar problems.

You are invited to make free use of this department and to join in discussing various problems that are mentioned from week to week. Do not hesitate because you do not feel that you are an experienced writer. We will take care of that part of it.—Editor.

coiler. When this occurs it will take some times several hours before the cards can be selected. This is because the thin web sticks so much that it cannot slip over and through these parts.

When the cards are cleaned, the last thing to do is to wipe off the parts until perfectly dry, and then to have these parts brightened with whitening or polish. Helper.

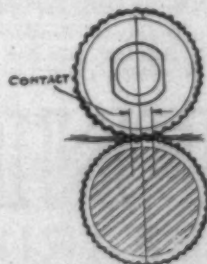
Point of Contact Between Rolls.

Editor:

When roving passes between the drafting rolls, is the point of contact a dead center line or is it a plain surface contact Spinner.

Answer to Spinner.

If Spinner who asked the question about the point of contact between rolls, will examine his rolls closely, he will find that as the top roll presses down upon the steel roll against the roving passing through, he will find that the roving instead of being round, is pressed down flat.



Therefore, instead of the point of contact being a dead line of center, it is plain. Or in other words, a flat surface. The cut herewith shows the difference. Please make the dead center lines, also the plain shorter lines on each side of the surface of contact between the two center line. Trusting this answers Spinner's question all right.

Study.

Damp Cotton Trouble.

Editor:

What is the remedy for carding cotton which contains too much water? Damp.

Answer to Damp.

Editor:

The question Damp asks about how to run damp cotton can be answered by stating that if he will turn on a good head of steam in picker room and in the carding room during the night, it will dry out the damp cotton with which he is troubled. His cards will start promptly in the morning and run right all day. Put the steam every night until all of the damp is used.

Another good remedy is to oil-spray the raw cotton either behind the bale breaker or back of the first picker opener. Strategist.

Motion Pictures To Show Thread Knotting

One of the problems confronting the textile industry—shuttle thread knotting and uneven bobbin action—may be solved finally through the use of a new invention by C. Francis Jenkins, Washington, D. C., scientist. It is "the Jenkins chronoteine super-speed camera for high speed motion studies."

The Jenkins Laboratories make the following statement relative to the invention:

"Mr. Jenkins perfected the camera in order to detect possible faults and disclose the need for refinements in inventions passing through their experimental stages in his own laboratories. He also is inventor of the map-making machine by which weather maps are radioed to ships at sea, the creator of economy and safety devices for airplanes and is the recognized father of radio vision.

"He found that his camera not only could be applied to experiments in his own laboratories but would prove invaluable for the study of many problems in industry which are not possible of accurate determination in any other way. Anything that moves too fast for the eye to follow can be slowed down through the use of the Chronoteine and examined in detail and at leisure.

"In the textile industry it has been discovered that a loss of time and money results from shuttle thread knotting and uneven bobbin action. While the looms are weaving, it frequently happens that the threads be-

come knotted. Mechanics and experts employed in textile shops have been unable to determine the cause for this. It always has been necessary to stop the loom to examine and fix the thread.

"The inability to ascertain the cause of thread knotting is due to the fact that the high speed of the loom makes impossible any detailed study of the action of the bobbin. The camera which projects slow motion films upon the screens in picture theatres is not swift enough to capture the movements of the loom.

"The Jenkins Chronoteine camera makes movies photographed at a rate of three thousand two hundred exposures per second, or a length of 200 feet of film per second. This means the film in the Jenkins camera travels at a speed of 136 miles an hour, while pictures are being made thereon with microscopic accuracy, and of the conduct of a loom at high speed.

"Projection of these pictures at normal rate, sixteen per second, makes the action two hundred times slower than the original movement and twenty times slower than the slow motion films frequently shown in picture theatres."

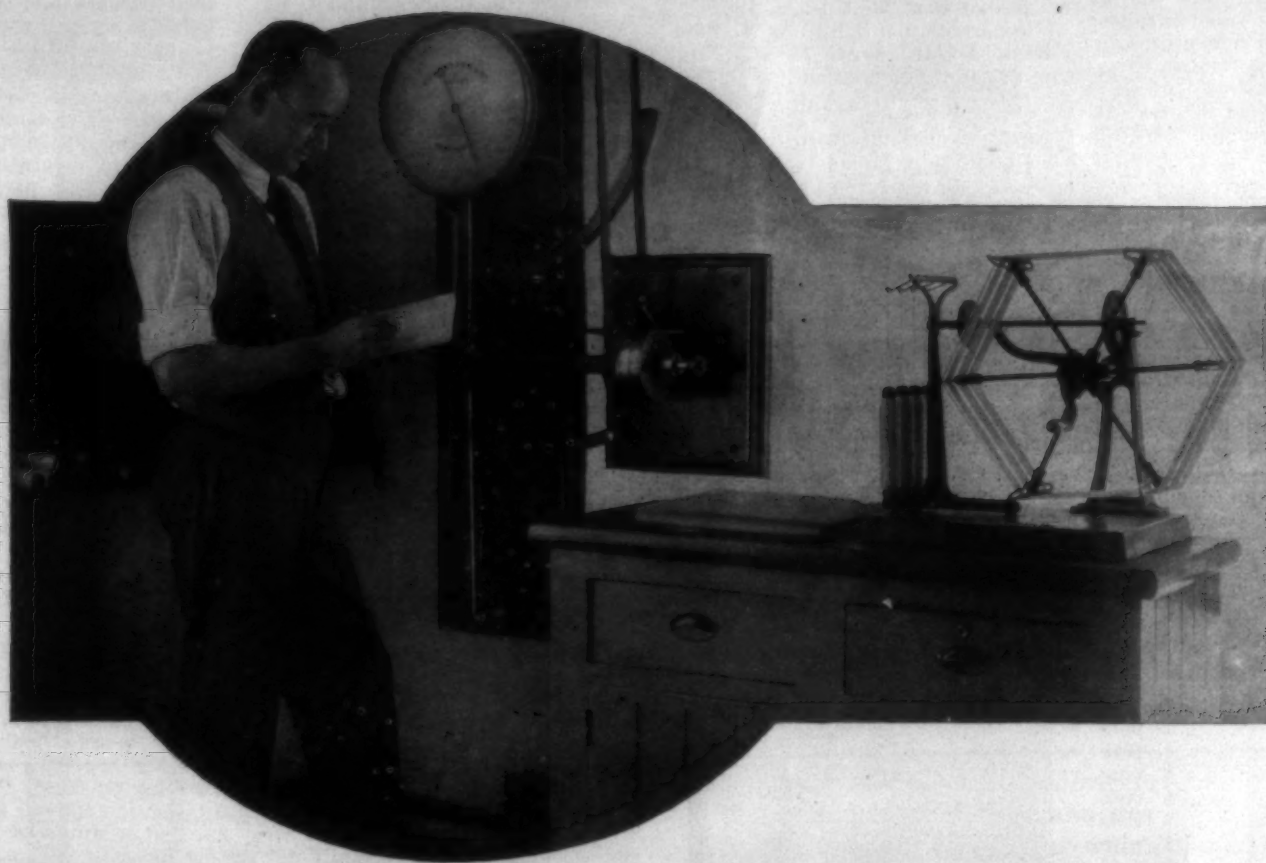
Cold Bleaching of Cotton

The kier-boiling under pressure of cotton materials is liable to be accompanied by damage to the strength of the fibre, a possibility which has encouraged attempts to perfect on the mechanical side the cold method of bleaching.

An arrangement stated to be suitable for this purpose has been devised by Mohr, and is described in the Textilberichts. The idea involved is the discontinuance of as much as possible of manipulation of the material during treatment by placing it in a suitably constructed high-pressure kier in which it is caused to be impregnated successively with cold solutions containing a chlorine compound, acid, an oxygen compound and then washing. Heat is only applied, and but moderately, to the oxygen containing solution. The solutions are circulated throughout the mass of the material by means of hydraulic pressure of two to three atmospheres.

This method of cold-bleaching is stated to yield excellent results. The resulting white is very pure, the fibre preserves its soft handle, and the loss in length and weight is less than by the ordinary boiling method.

The process is said to be particularly suited to the treatment of finely-woven materials such as curtain and lace fabrics, as well as those containing artificial silk. The specially-devised contrivances are, of course, expensive, but their initial cost is recompensed by notable economies in fuel and labor.



THE CHECK-UP ALWAYS SHOWS

UNIFORM Yarn can only be made on Uniform Bobbins. Variations in diameters of Slubber, Intermediate, and Speeder Bobbins cause a tremendous amount of poor yarn.

Does your check-up show weak or uneven yarn? Your first corrective measure is to equip your card room with U S bobbins. U S Speeder Bobbins, 6", 7", and 8" traverse, are guaranteed not to exceed .0116, and 9", 10", 11", and 12" bobbins, not to exceed .0156 either side of the diameter specified. Mixtures of hard and soft woods cannot be turned uniformly. When you buy U S Rock Maple Speeders you get the best Northern grown Rock Maple obtainable. Maple is not mixed with Birch and Beech. Your carder will be proud of U S polished Speeder Bobbins and you will be proud of his work.

Price does not indicate the cost of bobbins, spools, and shuttles. The cost is the price plus your waste and seconds account. That's where U S Uniform Bobbins prove their economy.

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P. K. Dry Wins Contest on Carding

FIRST prize in the contest for the best article on the subject "The Fine Points of Carding" was won by P. K. Dry, assistant superintendent of the Linn and Corriher Mills, Landis, N. C. His article, Number Forty-five, signed Andy, received two votes for first place and was the only article to get more than one vote from the judges.

The first prize is \$25.

The vote of the judges showed that six articles are tied for second place, with one vote each. These articles are Numbers 6, 18, 23, 33, 36 and 37.

We are therefore asking the judges to re-read these articles and give us their opinion as to which is best and which is second best. The second decision from the judges will determine the winner of the second and third prizes. We expect to be able to announce these prize winners in our issue of next week.

The second prize is \$15 and the third prize is \$10.

Seven practical mill men acted as judges in the contest. A tabulation of their votes show the following.

Vote of the Judges.

Article No. 45.....	2 votes
Article No. 6.....	1 vote
Article No. 18.....	1 vote
Article No. 23.....	1 vote
Article No. 33.....	1 vote
Article No. 36.....	1 vote
Article No. 37.....	1 vote
Article No. 1.....	1/2 vote
Article No. 5.....	1/2 vote
Article No. 8.....	1/2 vote
Article No. 12.....	1/2 vote
Article No. 21.....	1/2 vote

Articles Number 45, 6, 18, 33, 36 and 37 each received 1 vote for first place, while article Number 23 received two votes for second place, putting it upon a parity with the others receiving 1 vote for first place.

The vote of the judges was as follows:

Judge Number One.

Best No. 45 (Andy)

Second Best No. 23 (One of the Boys)

Honorable mention to No. 1 (Piedmont) No. 5 (C. E. J.) No. 17 (Experience).

Judge Number Two.

Best No. 45 (Andy)

Second Best No. 1 (Piedmont).

Honorable mention to No. 23 (One of the Boys) No. 5 (C. E. J.) No. 41 (X. V. Z.)

Judge Number Three.

Best No. 36 (W. C. H.)

Second Best No. 21 (S. C. M.)

Honorable mention to No. 1 (Piedmont) No. 3 (P. A. W.—Ga.) No. 7 (Grinder) No. 27 (Fifty) No. 47 (H and B.)

Judge Number Four.

Best No. 18 (Sambó)

Second Best No. 8 (System)

Honorable mention to No. 1 (Piedmont) No. 9 (S. S. P.) No. 38 (Progressive) No. (M. V. J.)

Judge Number Five.

Best No. 37 (Romer)

Second Best No. 5 (C. E. J.)

Honorable mention to No. 1 (Piedmont) No. 11 (Ayak) No. 27 (Fifty) No. 42 (Carding Student)

Judge Number Six.

Best No. 33 (Southern)

Second Best No. 12 (Thrift)

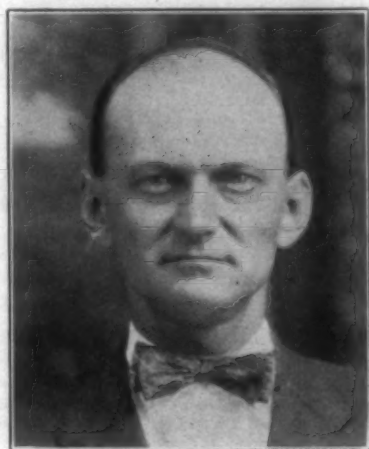
Honorable mention to No. 1 (Piedmont) No. 23 (One of the Boys) No. 38 (Progressive) No. 45 (Andy)

Judge Number Seven.

Best No. 6 (Corn Husker)

Second Best No. 23 (One of the Boys)

Honorable mention to No. 1 (Piedmont) No. 13 (Trouble Hunter) No. 16 (J. T. K.) No. 32 (Hard Worker) No. 38 (Progressive) No. 44 (Bat)



Winner of First Prize:

P. K. Dry

Landis, N. C.

Mr. Dry is assistant superintendent of the Linn Mills and Corriher Mills Co., Landis, N. C. Some years ago he was carder and spinner at the Patterson Manufacturing Company, China Grove, N. C., then spinner at the Franklin Mills, Concord, N. C., and later carder and spinner at the Tuckasegee Mills, Mount Holly, N. C.

In 1917 he became overseer of carding at the Corriher Mills Company, Landis, and after five years service he was promoted to assistant superintendent of the Corriher and Linn Mills, a position which he now holds.

Mr. Dry is known as one of the most efficient mill men in the South and has a large number of friends in the textile industry who will be interested to know that his article was voted first place in the contest.

Until the winners of second and third prizes are finally decided, it will not be possible to give the names of the men who are tied for these prizes, nor those of these who were given honorable mention.

The names of the judges will be published when their final decision has been made known.

A total of 48 articles were contributed to the contest which was published in these columns May, June and July. The contest has created a great deal of interest and information brought out in the various articles has proven of real, practical benefit on the subject of carding.

The articles will be published in book form as soon as possible and two copies of the book will be pre-

sented to each contestant. The book will contain the best ideas of practical carders and will be of great value to all mill men, especially the younger men in the mills.

We take this opportunity of congratulating Mr. Dry upon having won first prize against the very real competition developed in the contest and of congratulating all of the men who took part for the excellence of their contributions.

The Prize Winning Article

By P. K. Dry

The subject Fine Points of Carding, is a very broad one, and only those who have had long experience can give anything like all the fine points about a card. Having had a number of years experience, I will offer a few points that I have found will give fair results.

To get good carding, the cards ought to be built on a solid floor so they do not have any vibration. The clothing should be selected for the kind of work you expect to do. The clothing should be pulled on at about 200 pounds pressure and left for twenty-four hours with the room at a temperature of about 85 degrees, and then taken off and pulled on again, cylinders at around 375 pounds, doffers at about 250 pounds, well driven up with a clothing hammer and tacked. When put on this tight, we can feel pretty sure of it not becoming loose and rising up.

Cards must be kept level to keep cylinders from rubbing arches. Keep all brushes in good order. Flat brushes must not be set too deep. If they are, they will only pack short fibres and foreign matter down in the clothing instead of brushing it out as it ought to do. Flat end brushes should be watched very closely and not be allowed to become packed with fly and stop revolving, if they do the ends of flats will become coated with grease and dirt, and you cannot get a smooth setting on flats. Flat chains must be kept reasonably tight. If they are not, the first four or five flats on back will not do any carding, and if every flat that is supposed to be at work is not working you are certainly not getting the results you ought to be getting.

As I said in the beginning, a card must be kept level, to insure a smooth running doffer, licker-in and cylinder. This will enable you to get a close setting, which is the most important work about a card. It is very important that the licker-ins be kept in good shape. The wire all straightened up and sharp.

Various things will cause licker-ins to get in bad order. A cotton buckle, piece of cotton tie or mote knife get knocked up against it. When these things happen they must be looked after and remedied at once if you expect to get fine carding. Screen must be kept up. Sometimes a rib will get knocked out or broken while taking out flyings, or sometimes a bunch of strips will get in and knock out or bend a few ribs. When this happens it will affect the draft underneath the cards and you will not get fine carding. Screens and licker-ins should be examined every time the cards are ground. Cards should be ground every ten to fifteen working days. This depends lots upon the grade of cotton you are using, amount you are carding and opening and picking machinery you are using. I know of some places where they do not pay very much attention to picking and opening machinery, and then expect the cards to do it all. You cannot get fine carding this way. All heavy motes, seeds, gravel, etc., are supposed to be taken out in the opening and picking room, for this kind of foreign matter is too rough for card clothing to handle.

When a licker-in gets the wire bent over for say one-half inch or even a wider space I wouldn't fool with trying to file this out for everybody knows that when you file the points off, the teeth are shorter and will cause the cotton to come in in strings or bunches. The best and only way to remedy a damaged licker-in is to put new wire on it, so you can get a close smooth setting.

Grinding and Burnishing.

When a card is to be ground, strip it out good, clean out all bunches from around cylinder and doffer, put on doffer belt, run in opposite direction from working. Brush both cylinder and doffer good with a clothing brush, then stop it off, put grinders on, pull them down to about a seven gauge at each end. By using a gauge before starting grinders will eliminate all doubt of damaging clothing by trying to set by sound only.

I am not a great believer in heavy grinding. When ground too heavy you will have a wire edge on the teeth and the card will not strip well. I think to grind eight hours reasonably heavy gets better results than six hours heavy. Keep good emery fillet on your grinders all the time. If this is allowed to become slick, you are only rubbing the clothing instead of grinding it. The flats should be ground at same time cylinder and doffer are. I find wonderful results in burnishing, especially where the vacuum stripper is used. Burnishing keeps the teeth polished on the sides and

(Continued on Page 31)

MATHIESON

Industrial Chemicals

An Ancient Emblem with a Modern Meaning

THE "Fascisti", the present Italian governing party, takes its name from that famous bundle of birch rods, which since ancient times has denoted strength through unity.

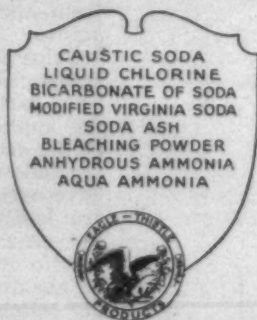
The fasces might well be the symbol or trade mark of the Mathieson Alkali Works. If one rod bore the label "manufacturing facilities", another "distributing organization", another "traffic service", and if others bore the names of the various departments of this organization, the emblem would convey some idea of the purpose—the keynote—of the Mathieson policy.

In short, the entire Mathieson organization is bound into one harmonious whole, by a single,

unified objective and purpose. That objective is loyal and faithful service to Mathieson customers. That purpose requires the perfect coordination of all branches of activity, and that inter-dependence of functions which insures all-round efficiency.

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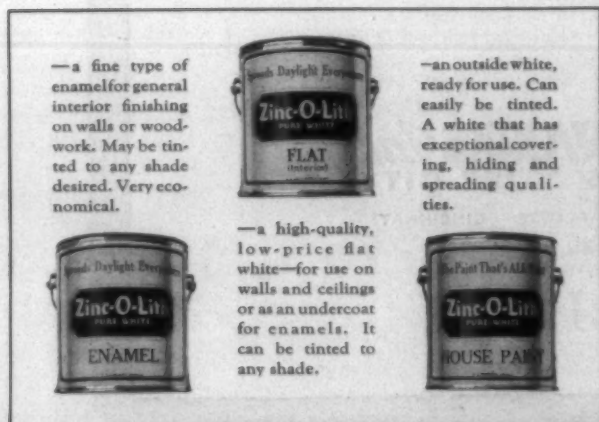
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From Microscope To Loom

AN organism is built up of two groups of substances. One group, in which the vital processes of metabolism and proliferation takes place, as characterized by its great chemical reactivity; the other group contains the frame substances, which are only slightly reactive. In spite of the abundant possibilities, nature seems to have at her disposal only a few types of organic building material suitable for the latter task. In plants it is almost exclusively cellulose which gives them form and rigidity. In the animal kingdom, before the vertebral column has evolved, chitin plays this duty role. In the vertebrates this duty is carried out by killogen and some other albuminous substances, of which keratin is an example. The latter substance, about which very little is known, is the principal constituent of hair. Silk fibroin, the chief constituent of the silk fibre, is included by chemists in the same group of substances.

When viewed under the microscope all these substances are found to be built up of small fibres. Examination by X-rays can be looked upon as a microscopical method in which the magnification is one thousand times greater than in the visible spectrum. The application of this method has led us somewhat farther in that it has shown that nearly all these fibrous substances are composed of minute crystals. These crystals are oriented in a definite and characteristic manner, actually the same as that of the crystallites in a hard drawn metal wire. As this orientation was first observed in fibrous substances it has been called "fibre structure."

Up to the present suitable material for the manufacture of artificial fibres has only been obtained from the substances which form natural fibres; and actually only cellulose and its derivative, cellulose acetate, have proved satisfactory. The particular advantages which the application of cellulose affords in the artificial fibre industry lie in the following considerations:—We have mentioned that cellulose fibres are built up of small crystallites. The behavior of these crystallites in certain chemical reactions has caused chemists to consider these minute cellulose crystals to be the cellulose molecules. Previously all chemists held this view, and it is still held today by quite a few. In certain cases the crystallites undergo chemical transformations without breaking up, and when the chemical derivatives of cellulose which are so obtained are dissolved, particles of the same size as the crystallites are in many cases obtained.

Nitro-cellulose, or gun-cotton, is an example which may be quoted here. Some of the transformations involved have been recently explained. It has been known for a long time that chemical change in the fibre can take place without any noticeable change in its external appearance, either to the naked eye or to the microscope. Even if the product is reconverted into cellulose the

form remains intact. For example, the corkscrew-like structure which is an outstanding characteristic of the cotton fibre is retained on nitration to gun-cotton—hence the name—and further on its reconversion to cellulose.

If we form a thread from a solution of nitro-cellulose by forcing it through a capillary and removing the solvent from the liquid thread by warming a solid thread of nitro-cellulose remains which, after reconversion to cellulose, is composed of crystallites of the same size as those of the original cellulose.

Our artificial cellulose fibres are thus similar to the natural fibrous material both in their chemical composition and in physical structure. Nevertheless, only a similarity exists—by no means identity. When we compare an artificial fibre with a natural one we certainly find very great differences (entirely apart from the infinite length).

Natural plant fibres possess an extremely complicated structural scheme. In this scheme the crystallite is only the ultimate building unit. Technically it is almost impossible to think of building up such a fine structure, although it is from this complication that the peculiar mechanical and moisture-resisting properties of the natural fibre come.

A cotton hair is one single cell; the bast fibres (e.g., flax) consists of a bundle of cells, small hollow cylinders drawn out to a point at each side. The cells of the bast and leaf fibres—also called elementary fibres—are of very different lengths, depending on the particular plant species. The breadth varies in a less marked manner, and values above a tenth of a millimetre and smaller than a two-hundredth of a millimetre are only occasionally found. The mean is between two and three hundredths.

The elementary fibres themselves are built up of elongated fibre-like structural elements, called fibrilles. They may be distinguished microscopically, both in the intact fibre and in fibres which have been badly damaged by mechanical means. The breadth of these fibrilles from bast does not vary very much; in most cases it was found to be of the order of a few thousandths of a millimetre.

In cotton the conditions are quite similar. The diameter of the cell where it is thickest is about one-fiftieth of a millimetre, the lumen being one-third of this. W. L. Balls and H. A. Hancock found that the number of fibrilles which form the cross-section of the cotton fibre is about one-thousandth. From this value the thickness of such a fibrille can be estimated to be about fourteen thousandths of a millimetre, a value which is in good agreement with our experience with bast fibres. The length of the crystals from which the fibrilles are built up was found from the X-ray measurements (using certain simplifying assumptions) to be about one-hundred thousandth of a millimetre.

Fibre Structure.

The extraordinary mechanical properties of plant fibres are due to

the mutual arrangement and association of these structural elements. The bast fibres which are used technically are those in which the cells lie more or less parallel in easily divided threads, not those in which the bast system forms an entangled network from which fibres suitable for spinning cannot be isolated. The cells are, in general, tube-like structures which are built up of the fibrilles; this holds particularly in the case of cotton. We can look upon the fibrilles themselves as a bundle of more or less parallel strings of beads, partially twisted within one another. The beads then represent the cellulose crystallites.

We do not know whether the individual types of structure elements—cells, elementary fibres, fibrilles, crystals—are cemented together with types of the same class by special binding substances, or if the separation or connection of the individual building units is purely a property of the surface layer. We do not know under what conditions this arrangement is laid down in the plant. The slight progress which has been made is purely systematic. We believe we may say that only the above mentioned types of units take part in the building up of plant fibres.

The regularity and density of the building units, which are cemented together with embedding substances, make the cellulose fibre so resistant to water. The preparation of artificial silk from this as raw material alters it very considerably. When cellulose is put into solution in any form, for the purpose of spinning it into artificial silk, the following takes place:—All the above-mentioned structural units are broken up into the final building element, the crystal. We dissolve out the embedding substances which lie between the crystals (if they have not already been more or less destroyed by chemical action) and, finally, we alter the properties of the crystals or particles themselves. (The particles are known to be swollen in the spinning solution). It is very probable that the cellulose crystallites are filled with innumerable cracks and fissures. By this assumption, it is possible to explain their behavior in certain certain chemical reactions in which cellulose retains its external form. If these crystallites are brought into a suitable solvent it penetrates between the "interior" surfaces and presses the mapart. The lamellae of which the particles are composed spread out like a fan. If the swelling agent is now removed by drying, the lamellae close together again, but not so completely as before; fissures remain, and the sponge-like crystal has larger interstices than originally.

The solution of the substances which exist between the crystallites in the natural fibre and the sponge-like structure of the swollen crystals are the causes of the most important practical difference between natural and artificial fibres—the low resistivity to water of the latter. When natural fibres are immersed in water the imbibition takes place chiefly in the larger fissures. The surface of the crystals seems to be protect-

ed by the embedding substances. In the preparation of the spinning solution the arrangement of the crystals is destroyed and never properly restored; the protecting layer between them has been more or less removed, and their surfaces are accessible to water. The fissures in the crystals are widened, and it is possible that water may penetrate into the lattice itself. Actually, on immersion in water the cross-section of artificial fibres is nearly doubled, while that of natural fibres shows no appreciable alternation. This difference is especially important in questions of mechanical strength. Extensibility and strength of artificial fibres from cellulose depend to a large extent upon humidity. As a rule, the strength of the wet fibre is reduced by more than half; the extensibility increases, and the fibre flows when stretched.

Natural silk shows a structure similar to that of artificial silk; it is built up of small crystals, which, like those in plant fibres and in some kinds of artificial silk, possess the characteristic "fibre structure" arrangement. Under the microscope the degummed silk filament usually appears structureless, but after maceration with dilute chromic acid or other suitable reagents a distinct longitudinal striation appears, especially in wild silks. This had already been observed by Von Hohnel, who concluded that each silk fibre was composed of a number of harder fibrilles embedded in a softer substance. X-ray examination has made it seem rather probable that the chemical composition of the crystallites, which may be somewhat smaller than those in cellulose, is not so complicated as chemists had previously assumed for silk fibroin. It is inferred from this fact that the crystals are surrounded by other compounds, which act as cementing materials. This would be in good agreement with the microscopical observations; but experience has shown that the latter may perhaps be explained by colloid chemical differentiation in the filament itself.

The study of the manner in which metals are built up from the finest structure elements has led to important practical advances in metallurgy. One may assume that similar progress is to be expected in the textile industries as a result of the investigation of the fine structure of fibres. It is easily seen, however, that general and immediate successes in all directions cannot be expected. Perhaps the net result at the beginning will only be a confirmation of what has been known for a time and will only lead to a more exact and scientific formulation of our old ideas. It is unreasonable to expect that the investigation of so complicated a fibre as an animal hair will lead immediately to fundamental results. The necessary scientific methods—particularly in chemistry will have to be built up.

The direction in which advance may be expected is most probably with the simpler cellulose fibres, rather than with the complicated protein fibres. Perhaps the outlook is most promising in the case of artificial silk.

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SOUTHERN TEXTILE BULLETIN

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Business Manager

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A Million Dollars Lost

LAST year when a great hue and cry was raised against the publication of the semi-monthly crop reports by the Government, we stood alone in urging that these semi-monthly reports be continued. We strenuously opposed the discontinuance of these reports although almost every cotton manufacturers association has passed resolutions urging that they be abolished and a great many other voices in the cotton industry were raised against them.

Our stand in favor of the semi-monthly reports was based upon the fact that in the absence of Government reports, the market was unduly influenced by private crop reports and the campaign of propaganda by cotton speculators. We pointed out last spring that all of the big cotton speculators desired the elimination of the semi-monthly reports so that the market might come more fully under the influence of the private estimates and those interested in manipulating prices.

We made a detailed compilation of the range of cotton prices which showed that the semi-monthly reports were an important factor last year in helping cotton prices decline in an orderly fashion and in preventing the sharp price movements that had previously demoralized the cotton and cotton goods markets.

It is always a matter of extreme importance to the textile industry that any movement in cotton prices, whether upward or downward, be carried out as gradually as possible so that the demoralization that accompanies drastic fluctuations be avoided.

The soundness of our position in favor of the semi-monthly crop re-

ports was very clearly demonstrated by the developments in the cotton markets this week.

Following the publication of the Government condition and estimate report, cotton skyrocketed in one of the wildest movements that the trade has ever known. There was a mad scramble to buy cotton and naturally prices soared. The markets for cotton, cotton yarns and goods were thrown into confusion.

This situation was brought about because the average of private crop estimates was greatly in excess of the Government estimate and because the cotton speculators for time past have been creating false ideas of prospects for a very large cotton crop.

When the Government report on Monday showed a condition of 69.8 per cent and an estimated yield of 13,492,000 bales, as against an average of private estimates of almost 15,000,000 bales, the most violent fluctuation in cotton prices in recent years was noted.

Government crop reports have often and justly been criticized for their inaccuracies, but the fact remains that they are the greatest influence, regardless of their accuracy, in the cotton markets. The immediate effect of the report this week in breaking down the large crop ideas that were built up by private estimates and the speculative element is ample evidence of that fact.

The semi-monthly crops helped serve as a guide to cotton prices and we believe their absence is going to leave the market much more subject to violent ups and downs.

Southern mills have this week lost at least one million dollars because of the erroneous ideas of the size of the crop that have kept them from buying cotton.

Church Bureaucrats

MINISTERS and churchmen are denying the statement of Federal Council of the Churches of Christ in America to the effect that within the past few years churches have lost 500,000 members.

The average minister works hard and is poorly paid, but in the church, as in Government, bureaucrats have created fat jobs for themselves and many who are unworthy to be considered church leaders are occupying soft seats.

There are good men among the leaders of the Federal Council of the Churches, but there are also among them many men of extremely radical tendencies and a number whose disloyalty to the United States during the World War is well known and undisputed.

The establishment of church bureaucrats is not for the best interest of the church and may, in part, be responsible for the 500,000 withdrawals which they claim to have taken place.

Don't Forget the Weevil

On the last day of July cotton declined \$2.50 a bale. Apparently the weevil, which has been a bullish factor, was, for the time being, forgotten and the market looked only at the fine growth the plant is making. However flourishing crop conditions may be at this time, the weevil is now becoming the deciding factor on the size of the crop.

If you look only at the growth condition of the crop and the weevil damage done thus far, it would not be surprising that cotton should decline. Crop outlook is fine and the weevils have done but little damage. But just at this time the weevil gets in its work, and its life history proves that this is no time for the market to sleep on the question of damage by the insect. A few facts may be useful.

Ordinarily the female weevil begins laying her eggs late in May or early in June. She lays about five a day and keeps this up throughout the season. Experiments conducted by the Bureau of Entomology show that one insect is capable of producing 450 eggs in a season. Under normal conditions it is a short time between generations, and, at end of season an old weevil can number its descendants of the fifth and, in extreme cases, the seventh generation.

Theoretically, the increase from one insect by the end of the season would run into billions. The old time story of the horse-shoe nail as an illustration of geometrical progression becomes as nothing beside a weevil. However, hot weather causes great mortality among the larvae, and it is only in cool and rainy seasons that a reasonable percentage of the eggs hatch and mature into full-grown cotton-destroyers. Some time early in August, usually about the 10th, the third generation appears. If the weather has been cool and showery they should be in sufficient numbers to cause considerable damage to the crop, and from that time on the damage done by them is almost geometrical in its progress.

Past experience shows but little weevil damage done before the first week in August. After that it is all a question whether or not the weather has controlled the natural increase. This year it has not controlled as much as in the past three years. The weevil is now a menace and one to which the market cannot afford to shut its eyes. —Wall Street Journal.

North Carolina Leads In Automobiles

THE compilation of automobile registration in the Southern States shows as follows:

State	Registration
North Carolina	441,650
Florida	374,757
Virginia	299,924
Tennessee	269,948
Georgia	257,760
Maryland	245,070
Alabama	224,843
Louisiana	210,000
Mississippi	198,500
South Carolina	174,523

These figures show that there is an automobile for every 6.6 people in North Carolina.

The State of North Carolina issued bonds and built a system of hard surface highways.

While the other States croaked pessimistically of disaster to North Carolina and adopted the pay-as-you-go system, the people of North Carolina being influenced by good roads bought automobiles.

Now 441,650 automobiles are running over the roads of North Carolina and for every gallon of gasoline consumed North Carolina gets 4 cents for the retirement of its road bonds and the building of additional roads.

That the buying of automobiles has not bankrupted North Carolina is shown by the fact that for the year ending June 30, 1927, North Carolina led all the Southern States, by a wide margin, in the payment of Federal taxes and paid \$20,000,000 more to the Federal Government than all of the New England States combined.

North Carolina has proved that good roads are a splendid investment and that the "pay-as-you-go" system of road building is uneconomical and inefficient.

Encouraging Progress

WE are very much gratified to know that the Carded Yarn Spinners Group of the Cotton-Textile Institute is making excellent progress.

It is understood that the Code of Carded Yarn Trade Practices has already been accepted as a statement of sound business principles by a majority of carded spinners and distributors. Adherence to the Code should bring about vastly improved conditions in marketing yarns.

The work of gathering statistics is already established, and a majority of the mills are now making regular reports to the Institute. These mills are now able to make use of these statistics as an aid to more intelligent production and distribution of their products.

Personal News

Daniel Flaherty has become designer for the Lee Weaving Company, Petersburg, Va.

J. H. Emory will be superintendent of the Emory and Seagroves Hosiery Mills, Durham, N. C.

J. C. Flynn, of Mooresville, N. C., has accepted a position with the Watts Mills, Laurens, S. C.

Fred Raymond has resigned as assistant superintendent of the Meritas Mills, Columbus, Ga.

A. L. Bannister is now overseer of weaving at the Greenwood Cotton Mills, Greenwood, S. C.

O. A. Norris has resigned as superintendent of the Barringer Manufacturing Company, Rockwell, N. C.

O. M. Lipex is now second hand in carding at the Lydia Mills, Clinton, S. C.

Z. L. Underwood is now overhauling carding and spinning at the Pickett Mills and the High Point Yarn Mills, High Point, N. C.

O. Spencer Brock, superintendent of the Valley Mills, LaGrange, Ga., was recently married to Miss Edith Orr, of LaGrange.

Junius M. Smith, business manager of the Southern Textile Bulletin, is spending his vacation in the mountains of North Carolina.

J. G. Garrett will be superintendent of the new full-fashioned hosiery plant of the Cooper-Wells Co., Decatur, Ala.

J. C. Hester is now night overseer of spinning at the High Shoals plant of the Manville-Jenckes Company, High Shoals, N. C.

F. E. Van Tine, of New York, who was recently elected treasurer of the Republic Mills, Great Falls, S. C., will make his home at Great Falls.

H. S. Fowler has resigned as overseer carding at the Arkwright Mills, Spartanburg, S. C., to accept a similar position at the Henrietta Mills, Henrietta, N. C.

J. A. Kirkpatrick has resigned as master mechanic at the Mollohon Mills, Newberry, S. C., and accepted a similar position at the Watts, Mills, Laurens, S. C.

B. L. Solesbee, formerly overseer of carding at the Martel Mills, Asheville, N. C., has become overseer of No. 1 carding at the California Cotton Mills, Oakland, Cal.

Z. B. Bradford, formerly superintendent of the Vance Cotton Mill, Salisbury, N. C., has accepted a similar position at the Barringer Manufacturing Company, Rockwell, N. C.

George Victory, formerly of the Atherton Mills, Charlotte, is now located at Waxhaw, N. C.

Paul A. Merriam has been promoted from manager of the United States Finishing Company, Cedar-town, Ga., to engineering manager of the corporation and will have headquarters at Providence, R. I.

A. B. Carter and J. Lander Gray, of the Mill Devices Co., Gastonia, N. C., have returned from a three weeks trip to England where they went in the interest of the Boyce Weavers knotter.

John Hill, textile engineer, and Charles T. Nunnally, president and treasurer of Nunnally & McCrea, Atlanta, Ga., sail on the "Ile de France" from New York on August 20th for an absence of several weeks abroad, visiting textile centers in England and on the Continent.

James Walton, Sr., who has been with the Cannon Manufacturing Company, Kannapolis, N. C., for the past 15 years, sailed recently for Europe, where he will visit his former home in Scotland. He will return in September.

R. E. Henry, treasurer of the Duncan Mills, Greenville, S. C., is to succeed George M. Wright as president of the Watts Mills, according to reports from Greenville this week. Mr. Wright will begin his duties as president of the Republic Mills, Great Falls, S. C., in September.

CHARLES OWEN

Macon, Ga.—Charles (Cap) Owen, foreman of the machine shop of the Bibb Manufacturing Company and for forty years a member of the Bibb Family, died at his home at 412 Montpelier avenue, Wednesday afternoon, following a week's illness. He had been in bad health, however, over a period of several years but refused to give up and only went home a week before his death because he was ordered to do so.

Charles Owen came to the Bibb when a child and he never tired of his work. He completed forty years' service with the Bibb in June and only recently had remarked that in October, when the annual service pin change is made, he would turn in his 35 year pin and get one with eight stars—a star for every five years.

His father was the late Logan Owen, one time superintendent of Number One mill. Cap was born at Riverview, Ala., July 22, 1872. His mother was Mrs. Georgia Clark Owen. On Aug. 22, 1894, he married Miss Alice Newby, who survives him. Three children, Dr. Logan S. Owen, of New York; Robert of Macon and Miss Mildred Owen, of Macon, also survive. Three sisters, Mrs. W. L. Wasner and Mrs. Jeff Tharpe, of Macon, and Mrs. Lewis White, of Indiana, and two brothers, Roland and Logan of Macon, also survive.

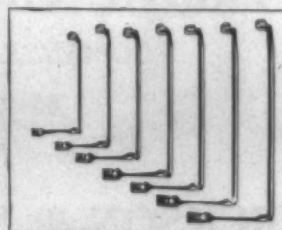
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W. H. MONTY,
Pres. and Treas.

W. H. HUTCHINS,
V.-Pres. and Sec.

MILL NEWS ITEMS OF INTEREST

High Point, N. C.—The Hosiery Corporation of High Point has been incorporated by Thomas Turner, Ralph D. Denning and G. B. Miller, all of High Point. The company has an authorized capital of \$100,000.

Monroe, Ga.—In regard to the enlargement and improvement of the Monroe Cotton Mills, Chas. M. Miller, president, states that the company has made some replacement in carding and spinning machinery, and does not expect to purchase any more additional equipment at this time.

Lafayette, Ga.—National Yarn and Processing Company, in Walker county, is planning enlargement costing about \$85,000. A large warehouse has just been completed and new office building will be erected. Machinery is now being installed for production of both single and two-ply mercerized yarn.

Durham, N. C.—The Louise Knitting Mill is building an addition to its finishing plant. The addition is 54 by 54 feet, one story, brick construction. More than 100 additional knitting machines are also being installed. Room for these machines was available in the building already in use.

This building was built about a year ago, following the destruction by fire of the building then occupied. When the present installation is completed the company will have more than 400 machines in operation, and a finishing plant, comparatively new, not only large enough to take care of their own work but a good deal of outside manufacture.

At present the company is buying the entire output of one or more mills in the gray and converting it into the finished product.

Laurens, S. C.—A proposition for the removal of a braid and lace mill from New York to Laurens has been laid before the directors of the Laurens Chamber of Commerce by Sidney M. Edelstein, who was recently employed by that organization to secure new industries for that city. The proposed industry, known as the Pioneer Braid Corporation, has a capital stock of \$250,000 and will consent to the removal of its plant to Laurens provided an investment of \$75,000 is made in the business by local people. The following committee was appointed to go to New York with the corporation and investigating the plant's possibilities; G. M. Wright, Albert Dial and Charles F. Fleming. The concern manufactures hat bands, shoe laces, upholstery braids and other articles of similar type, depending upon the market demand and seasons. Should the plant be moved to Laurens it would occupy 20,000 feet of floor space and employ about 200 people, about 70 per cent female and 20 per cent male.

Greensboro, N. C.—The White Oak Mills have let contract for two boilers and turbines.

Durham, N. C.—A new hosiery mill is being opened in Durham. Machines are being installed and it is hoped to have the plant ready for operation this week. Owners of the new plant are J. W. Emory, J. H. Emory and L. P. Seagroves, and the firm will be known as the Emory & Seagroves Hosiery Mill. Twenty-six knitting machines will be installed at this time. The product will be men's fancy hosiery. The Emorys were formerly with the Knit-Well Manufacturing Company. J. W. Emory as superintendent and J. H. Emory as selling agent.

Goldsboro, N. C.—The Goldsboro Narrow Fabric Company has been incorporated with a capital stock of \$100,000 by Ernest A. Zecha, Joe A. Parker and John R. Crawford.

Martinsville, N. C.—Martins Silk Corporation will build a new structure for its plant instead of using the former W. A. Brown tobacco warehouse. Although an option had been taken on the latter, it was decided that the vibrations of the heavy machinery would weaken the old building. The new building will be of one-story brick, 150 by 30 feet. Delay in the matter of building followed the selling of \$75,000 worth of first mortgage bonds, secured by the real estate of the company.

Rogersville, Tenn.—The International Label and Card Company, Inc., has taken over the properties and holdings of the F. Y. Kitzmiller & Sons Co. here, Maj. George L. Berry, of Chattanooga, announces.

"We shall likewise develop a textile business in Rogersville and bring into use the machinery in the building which we have purchased," he said. "The International Label and Card Company will be one of the largest institutions of its kind in America."

Major Berry said the plant will involve an expenditure of approximately \$1,000,000.

Greenville, S. C.—That S. Slater & Son, of Massachusetts, also contemplate the possible construction of a bleachery at Marietta was indicated by the announcement from W. C. Beacham, chairman of the City Water Commission, that the Slater interests had made inquiry as to the water rates for Marietta.

They had indicated that a bleachery might be established. Mr. Beacham said, and if so, water would be secured from the city lines, which bring the water from the Blue Ridge Mountains, a distance of nearly 30 miles. In the event a bleachery is established at Marietta, half as much water will be consumed by the Slater village as by the entire city of Greenville.

Rocky Mount, N. C.—Formal announcement was made here by R. L. Huffines, treasurer, that the Rockfish Mills, Inc., of this city, has just made a contract whereby it takes over the control and management of the Clayton and Liberty Cotton Mills, both located at Clayton.

The contract, according to Mr. Huffines' announcement, will become effective October 1.

The acquisition of these two mills gives this company five textile plants with headquarters in this city. An office has recently been opened in New York, and the product of all those mills will be sold through that office directly to the trade.

Anderson, S. C.—Officials of the Appleton Manufacturing Company, home offices at Lowell Mass., announced that 30,000 spindles of the Lowell plant will be moved immediately to this city and installed at the Appleton Mill here. This increase in the Anderson plant will furnish employment for about 500 people if operated day and night, it was stated.

The Appleton Manufacturing Company this week purchased 62 acres of land adjacent to their large cotton mill here from G. H. Bailes and has secured options on other property, it was stated. Reports here are to the effect that the Appleton interests are planning to build the largest mill in the world under one roof in this city, spending \$4,000,000, and building 250 new houses at their

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village. Officials have no announcement to make concerning this, although D. D. Little, Southern manager, has confirmed the purchase of additional lands here. Beyond confirming this indication of a general expansion here which may probably result in the removal of the Lowell plant of this company to Anderson, no comment was made.

The Appleton Company purchased the Brogon Mill here a few years ago, paying over a million dollars for it, and immediately doubled its equipment. It is operating day and night.

Fayetteville, N. C.—With one of the mills of the plant already in operation, the new owners of the Hawthorne Silk Mills here are receiving encouragement in their efforts to place white labor in one of the two factories. The mills have heretofore been run with negro operatives exclusively, but when the company was recently purchased by Albert Press and A. Brawer, of Paterson, N. J., they proposed to use white weavers in one mill. Their advertisements for labor of this kind is meeting with an encouraging response, according to officials of the chamber of commerce, who are giving the new owners every assistance in their power.

In the meantime Mr. Brawer has purchased Mr. Press' interest in the mills and is now the sole owner. His son is now in Fayetteville and will probably assume control of the manufacturing operations. Messrs. Brawer are experienced silk factory men from the center of that industry in America, and their ownership of the mills is expected to prove of much benefit to Fayetteville. They expect eventually to operate the plant at its full capacity, which will mean a payroll of \$6,000 a week. The Hawthorne Mills were placed in the hands of a receiver about two years ago, but with the present ownership the indications are that they will be run on a larger scale than ever before.

Institute Begins Study of Sheetings Costs

A study of important problems in the cost of manufacturing wide cotton sheetings is to be undertaken as a result of a meeting of cost accountants, representing members of the Wide Sheetings Group of the Cotton-Textile Institute, Inc., it was announced Monday by George A. Sloan, secretary of the Institute.

This meeting which was held in the offices of the Institute at 320 Broadway, on Wednesday, August 3rd, makes the beginning of cost studies by George W. Duncan, cost engineer, in groups already formed from the membership of the Institute. There were in attendance cost accountants from 17 mills representing more than 20,000 looms producing wide sheetings.

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We do the engineering, and have had 32 years experience solving water problems satisfactorily for textile mills.

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In addition to authorizing the appointment of a Cost Committee those at the meeting voted to recommend to the mills of the Group that in compiling manufacturing costs of raw materials be based on replacement rather than book value. It also recommended that depreciation be included in the cost of manufacture the rate to be a matter of further study by the cost committee.

This committee representing mills in both Southern and New England States will make a study of specific cost problems which will include two other subjects as well as depreciation. One of these will be concerned with normal production. Statistics are to be compiled on single shift production, which with the best data on demand will provide for each mill a more intelligent means of determining normal operating capacity.

The committee also will study the advisability of including interest on investment, or bank interest in determining cost of manufacture.

Meeting of Advisory Committee of Carded Yarn Group

Methods of increasing the knowledge and practical operation of the Code of Carded Yarn Trade Practices were discussed at a meeting of the Advisory Committee of the Carded Yarn Group of the Cotton-Textile Institute in Charlotte, Tuesday.

Since the last meeting of the entire group was held here in July, acknowledgment of the soundness of the Code has been steadily extended. Replies so far received indicate that more than a majority of the mills entirely or chiefly engaged in spinning carded sales yarn have subscribed to the soundness of the Code of Practices and are furnishing statistics on production, stocks, and orders to the Institute.

It is also understood that a large proportion of the membership of the Cotton Yarn Merchants Association

has signified its adherence of the Code.

As adopted in June by committees representing both spinners and distributors of carded sales yarn, the Code has been promulgated in the industry as a statement of sound principles of business practice designed to be beneficial to mill, selling agents and the consuming public.

J. A. Long, as acting chairman of the Advisory Committee, presided in the absence of B. B. Gossett, chairman, who is in Europe. George A. Sloan, secretary of the Cotton-Textile Institute, Inc., came from New York as representative of that organization. Others at the meeting were A. M. Fairley, J. A. Mandeville, R. C. Moore, H. T. Crigler and W. M. McLaurine, secretary of the American Cotton Manufacturers Association.

An Optimistic Forecast

Boston, Mass.—Harvard Economic Service in current bulletin says in part:

Business remains active for this season, and commodity prices have recently risen. In June, our general index of the volume of manufacture fell to normal, because of contraction in the output of iron and steel and automobiles; but it is noteworthy that, of the other eight industrial group indexes now available for June, only two (those for cattle slaughterings and newsprint consumption) declined.

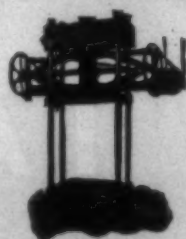
A good volume of general construction is now assured probably well into the autumn, despite the decrease in the construction of buildings in cities, and the recent large security flotations will also act to sustain business activity.

The congestion of the bond market late last spring seems to be undergoing rapid correction, and money rates have recently declined, the asked rate on 90-day bankers' acceptances now being $\frac{3}{4}$ of one per cent below the New York rediscount rate.

A spread of over $\frac{1}{2}$ of one per cent has not existed since the spring of 1926, and it may be the precursor of a reduction of the New York rediscount rate. Meanwhile, commodity prices have become somewhat firmer and the outlook for business has improved.



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Hester Reports on 1926 Crop

New Orleans, La.—Details of last season's bumper cotton crop which set the mills of the world to humming to break all previous consumption records, became available with an amplification by Secretary Henry G. Hester of the New Orleans cotton exchange, of the annual commercial crop report.

The commercial crop totalled 19,205,929 bales, Secretary Hester said, 3,591,222 bales more than that of the previous season, and 4,507,573 bales more than the crop of 1924-25.

In round figures, deliveries from Texas were fixed at 5,898,000 bales, an increase over the previous year of 1,652,000 bales. From other gulf States, including Mississippi, Arkansas, Louisiana, Oklahoma, Arizona, and New Mexico, deliveries reached 2,635,000 bales, 773,000 more than the previous year. Deliveries from the Atlantic States, including, Alabama, Georgia, Florida, the Carolinas, Virginia, and Kentucky totalled 5,673,000, an increase of 1,155,000.

Strict Low Middling.

The average grade of the crop, Secretary Hester said, was strict low middling, compared with low middling last year. Secretary Hester pointed out that for the past seven years the crops have not varied more than a quarter of a grade.

The report reviewed the history of the crop, terming it without a parallel, except perhaps in the days of 1914-15 when the country was

faced with enormous growth and the initial influence of the world war. During the earlier months of the past season, he said, there was a near panic, without reason, fear being expressed that the world would not be able to consume that crop which was forecast, coming as it did upon the heels of a liberal carry-over.

It rested the efforts of the New Orleans exchange during the period when fears for the disposition of the crop were felt. At the time Secretary Hester issued at statement of the crop situation at the request of the directors of the exchange. In the statement Secretary Hester said that the world would take all the American cotton the South could give it at 15 cents although it would take it for less if the South would give it a lower price. The crop could be handled through the ordinary channels of trade, the statement said.

Price Too Low.

Secretary Hester asserted that the crop had been sold for a small price than it should have brought; much of it below the cost of production. But, he added, the fact that we have sold it instead of carrying an unwieldy supply in this country at the close of the season is beyond the most sanguine expectations of early fall. The carry-over in the United States, he pointed out, exclusive of stocks held by the mills South and North, is nearly a quarter

of a million bales less than at this time last year.

The crop sold at an average price of 12.44 cents a pound, Hester said, or at \$66.73 a bale, compared with \$100.92 a bales the previous year, and \$24.19 a bale less although the quality of the crop was a quarter of a grade better.

The low point of the year was reached in December as a result of enormous shipments which brought ten and a quarter million bales upon the market during October, November and December, on the heels of August and September shipments of 2,98,000 bales. At that time cotton dipped to \$59.25 a bale. Later in January and February, prices recovered slightly, and in June and July, after most of the crop had passed out of first hands, soared to averages of \$80.97 and \$85.72, respectively, for the month.

Puts Mills to Work.

Secretary Hester termed the impetus the crop gave to the spinning industry as the most gratifying results of the crop. At home, he said, more cotton was used than ever had been known in history, and abroad the industry is almost back upon a basis of pre-war conditions.

While our production showed a great increase, he asserted, decreases elsewhere offset our increase and the aggregate contribution of last year's crop to the world's supply was no greater than the previous season.

The approximate consumption of

American cotton in Japan during the last year was 1,257,000 bales, the reports said, and during the past six months the Japanese mills have consumed more American cotton than ever before in their history. The total consumption for the last six months reached 744,000 bales.

India took from America 299,000 bales, he said, in addition to 21,000 other sales bought in Liverpool, or a total of 320,000 bales. Our contribution to China, he added, was 262,000 bales. Virtually the whole 582,000 bales sent to China and India were consumed, he added, and also that sent to Japan.

American mills, the report declared, have taken and consumed more American cotton than ever before in history, although most of the gain was shown to be in the South. American mill takings reached a total of 8,220,000 bales of American cotton compared with 7,289,000 last year, while their consumption tallied 7,828,000 bales against 7,035,000 the previous year. Opinion among

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leading mill men. Secretary Hester asserted is that since the buyers of cotton goods are not carrying large stocks, the prospect for some time to come dependent upon the coming season's supply and the trend of values for raw material.

The low price of cotton during the past year brought into play additional sources for its use, and mill men have given more attention to meeting popular wants than ever before, he said, adding that low values weakened competition of other textiles with cotton.

The world's consumption of American cotton, he fixed at 17,428,-

000 bales compared with 15,112,000 the previous year. Consumption outside the South was 2,359,000 against 2,356,000 last year, and consumption in the South 5,471,000 compared with 4,779,000 the year before. These figures, he pointed out, did not include 327,000 bales of foreign cotton which the North and South used.

The carry-over was placed at 7,-328,000 bales against 5,369,000, including linters, this year, 286,000, and last year 21,000. In the carry-over, he pointed out, were 115,800 bales of new cotton ginned before July 30.

P. K. Dry Wins Contest on Carding

(Continued from Page 22)

hooks off of the points, and you will not have the clothing on flats, cylinder and doffer loaded with dirt, short fly, motes, seed, etc. The vacuum stripper is the best thing I know of to make a grinder keep his cards sharp. If they become faced it will not strip clean and he immediately sees the trouble. We must strip at least three times a day. Any less than three times under most any conditions the clothing will get too full and shed and you will have neps in your sliver.

Settings.

You cannot get the same results from same settings under all conditions. The following settings will give fair results under ordinary conditions: Licker-in screen at lip, .034; cylinder screen at back, .017; next two setting points, .034; front, 3-16-inch; back knife plate, bottom, .017; back knife plate, top, .034. If this point is set too close the fibres will not rise up after leaving the licker-in, and the flats cannot get hold of them like they should.

The front knife plate governs the strips to a certain extent and will have to be set to suit the strips you want to take out. Mote knives, top .007; mote knives, bottom .005; licker-in from cylinder .007; feed plate to licker-in .007. I do not think we can set this point too close, for the licker-in is only a combing process, and the sooner it strikes the cotton, the more chances it has to clean it. Licker-in from cylinder .007; stripper comb from flats .012; doffer comb .012; flats all the way across .007; doffer to cylinder .005.

A card with the above settings with a cylinder speed of 165 to 175 r.p.m. well oiled and kept clean and carding around 65 to 75 pounds per ten hours on one inch middling cotton with a draft of about 125 ought to turn out good work. With a draft of 125 to 130 will give you lots cleaner work than 100 to 110 draft will, and just as good breaking strength.

SUPERINTENDENTS AND OVERSEERS.

We wish to obtain a complete list of the superintendents and overseers of every cotton mill in the South. Please fill in the enclosed blank and send it to us.

1923

Name of Mill _____

Town _____

Spinning Spindles _____

Looms _____

Superintendent _____

Carder _____

Spinner _____

Weaver _____

Cloth Room _____

Dyer _____

Master Mechanic _____

Recent changes _____

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U. S. Exports of Textiles Increase

E. A. Mann, Textile Division, U. S. Department of Commerce

TEXTILE fibers and manufactures thereof represented 20.4 per cent of the total value of United States exports of domestic merchandise during the first half of 1927, when shipments of all classes of textile commodities to foreign countries aggregated \$471,596,000 compared with \$426,869,000 during the first six months of 1926—a gain of 10.5 per cent. Raw cotton accounted for 80 per cent of the total value of exports in the textile group during the period under discussion in 1927 as against 76 per cent in 1926. (Unless otherwise specified, all figures in the remainder of this article are for the first six months of the year in question.)

Marked Gain in Exports of Raw Cotton.

Exports of raw cotton, including linters, increased from a total of 3,108,370 bales, valued at \$324,886,000, in 1926 to 5,221,360 bales, with a value of \$377,380,000, in 1927—a gain of 68 per cent in quantity and of 16 per cent in value. The latter percentage reflects a decline in the export price from \$0.2042 per pound in 1926 to \$0.1409 in 1927.

Europe took 73.8 per cent of the American cotton shipped abroad in 1927 against 78 per cent in 1926. Despite this decline in the proportionate share of the total exports, European purchases rose from a total of 2,424,874 bales in 1926 to 3,851,417 in 1927—a gain of 58.8 per cent. The largest increases were registered in shipments to Germany and the United Kingdom, the two leading markets for American cotton. Belgium and Soviet Russia in Europe

also bought considerably more American cotton in 1927 than in 1926. With the exception of Italy, sales of American cotton to other important consuming markets on the Continent registered moderate gains in 1927 as compared with 1926.

Port Stocks of Cotton Accumulating in Germany and Great Britain.

Exports of cotton to Germany, which include a large amount of cotton ultimately destined for other continental countries, mounted from a total of 480,049 bales in 1926 to 1,279,371 in 1927—a gain of 799,322 bales. Although 1927 operations in the German cotton industry have been somewhat in excess of activity in 1926, such improvement alone would hardly account for this marked increase in cotton purchases. The price of cotton in the latter part of 1926 and the early months of the current year apparently stimulated buying for stock far in excess of current requirements. This assumption is borne out by the increase in port stocks of American cotton at Bremen, which on July 2, 1927, aggregated 624,000 bales against only 159,000 on the corresponding date of 1926.

The British cotton industry has operated on restricted schedules during 1927, activity in the section spinning American cotton having been about 75 per cent of full-time capacity during the first six months. Further curtailment in July brought operations down to about 60 per cent of capacity. Just as in Germany, port stocks of American cotton have been accumulating, and on July 1, 1927, amounted to 1,084,000 bales as against 567,000 on the cor-

responding date of the previous year.

The abrupt drop in the price of American cotton about October, 1926, made American cotton relatively cheaper than Indian cotton, prices of which did not decline to a proportionate degree. As a result, mills in British India and China have found it profitable to import American cotton. Exports to British India rose from 13,492 bales in 1926 to 243,280 in 1927 and shipments to China increased from 68,337 bales to 155,965, while Japan took 827,121 bales in 1927 against 470,934 in 1926—almost 76 per cent more. The Japanese cotton spinning and weaving industry has been reported to be in a depressed condition, on account of poor local demand and unfavorable conditions in China during recent months, but mill production of yarn has been at about the same rate as during the record year of 1926. Stocks of American cotton in Japan at the end of May were more than double those of the corresponding date of 1926—an indication that current purchases have been much in excess of actual requirements.

United States exports of cotton manufactures decreased in value from \$68,314,000 in 1926 to \$63,314,000 in 1927—a loss of 7.4 per cent. Shipments of cotton cloth, including duck and tire fabrics, increased in quantity from 257,584,000 square yards in 1926 to 257,776,000 in 1927, but the value declined from \$39,222,000 to \$36,035,000—an increase of 10 per cent in quantity and a decrease of 8 per cent in value. The latter percentage reflects the drop in average unit prices of cotton cloth ex-

ported from \$0.1522 in 1926 to \$0.1306 in 1927.

Cuba was the largest purchaser of cotton cloth, other than duck and tire fabrics, during 1927, followed by the Philippine Islands in second place—a reversal of their positions in 1926. Exports to Cuba increased from 38,327,000 square yards in 1926 to 51,894,000 in 1927, while shipments to the Philippines declined from 51,393,000 square yards in 1926 to 33,878,000 in 1927. Sales to Canada amounted to 31,437,000 in 1926. Shipments to all South American countries decreased from a total of 57,135,000 square yards in 1926 to 54,548,000 in 1927, although exports to Argentina and Chile showed a slight increase.

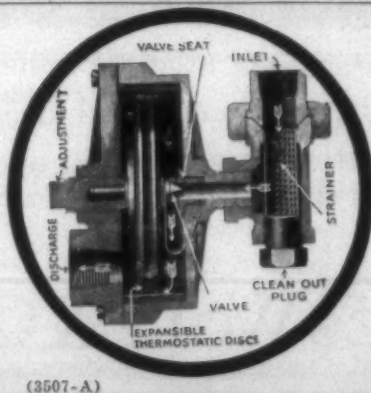
The Development of the South

The South is in an economic renaissance now. It is not a question when the advance of the South will begin. It is a question of going on with it. The South began its renaissance twenty-five years ago.

Industrially, the South is the section of the world where the largest development must take place in the next twenty-five years. There is no question as to the bright future of the South.

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Georgia Bill Would Give Bleachery Lien Against Unpaid Bills

Atlanta, Ga.—The Georgia "spinners' lien law," introduced some weeks ago in the Georgia General Assembly, has passed the State Senate and been referred to the House of Representatives for vote.

The measure, with its technical language translated, deals largely with bleacheries and provides recourse for a bleachery when goods are turned over to it for handling and are not paid for by the textile mill. Under the provisions of the act, a bleachery receiving such goods and, having bleached them, asking for payment from the textile manufacturer, has the right, if payment is not received at a specified time, to sell the goods and retain the amount due it, returning the remainder of the price received to the textile mill.

In other words, the bleachery or dye plant has a definite lien against the goods for the service performed and, in the event of failure to receive the amount of the bill, has the right to foreclose on the goods and sell them to receive that lien. Just what the need for such a measure is in Georgia seems doubtful, but the State Senate evidently thought the measure necessary, for it passed it without delay.

And if the House of Representatives begins to get caught up with its schedule, it is probable the measure will also be passed by it before the close of the 127 biennial session.

The Passing of Union Domination

Some will experience a feeling of regret, although almost everyone will sigh with relief, if the present situation in the coal industry results in the demise of the miners' union. Coal operators generally have been frank in saying that they do not wish the union abolished. It has served many useful purposes, and has a splendid opportunity, even now, for constructive work—which however, can not be accomplished by it as now directed. In the present crisis, the union is facing a stone wall. When the strike began there was approximately 75,000,000 tons of coal in the stock piles. Non-union production has kept so nearly even with consumption that the government agencies now estimate that when the fall increase in consumption begins there will still be several million tons on hand in the stock piles. In addition to this fact, field after field is reopening on an open shop basis and augmenting the present record breaking non-union production. Pennsylvania is well in the lead with mines that formerly were union producers going over to the non-union basis. Ohio has issued her ultimatum, and means to live up to it; and even Illinois, handicapped as she is with the unspeakable certificate law, holding her own, and will not back down in her position against accepting a scale that means complete bankruptcy.

In the meantime the nation goes vacationing, worrying little about

the coal industry, and giving no thought to next winter and the coal supply. The non-union districts are working with unprecedented speed, and every indication points to a surplus instead of a deficit when the consumption peak is reached this fall.

What then about the miners' union? And the Jacksonville scale? With the fuel supply readily available there will be no public clamor for legislation. With labor offered good jobs on a non-union basis, without a union check-off against their Saturday payroll, the ranks of the union will continue to diminish, and it is unlikely that these men will heed a national strike call.

The union to save itself must change its position. Unless it yields from its impossible demands, evil days seem to be upon it. — Mining Congress Journal.

Bureaucracy and the Government Bureaus

We have long opposed bureaucracy. We have continuously opposed every effort to perpetuate bureau rule. Our reasons have been oft repeated, but may bear reiteration: Bureaucracy means political control, which in turn means no settled policy and changes in policy with a change in administrations. No bureau, however ably manned, can hope to efficiently conduct a business operating thousands of miles from base. Alaska is an example and a victim of bureaucracy.

Our opposition to so-called bureaucracy is based upon the fact that bureau control in numerous instances is operating as a check upon private initiative and judgment, perhaps preventing the construction or refinancing of a railroad, or denying authority for the merger of industrial units where consolidation may prove to be an economic boon; or so restricting the opportunity for mineral exploration on the public lands that prospecting must be abandoned; or by building up a system of tax administration that keeps the taxpayer in a state of uncertainty concerning tax liability for years, when a few months at most ought to suffice for the adjustment of taxes.

The desire of the people for a sound, conservative and efficient government is being made known. Radical tendencies of the last few years are being definitely checked. The people know what they want and they intended to have it.

There has been in the past ten years a vicious tendency to increase rather than decrease bureau control of natural resources. We accept with as good a grace as possible the necessary bureaus—bureaus created under the theory that "the function of government is to do those things for the whole people, which the people can not do for themselves"—but we are opposed to an extension of any system that saps national pride and state and individual initiative. — Mining Congress Journal.

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The Cotton Goods Situation

THE situation in the cloth markets at the opening of a new cotton year would be considered satisfactory if the menace of high priced cotton were not so clearly outlined. Stocks of staple print cloths and sheetings in mill warehouses do not run much over a single week's output, while the average unfilled orders on the books are large enough to take care of the production from four to six weeks to come, with many mills sold ahead through September, says the Journal of Commerce.

A year ago there was a very substantial warehouse stock in sight. The trade is taking in all the goods due on order and is reasonably confident of a good fall business at the distributing end of the markets. So far as cotton goods merchants are convinced of anything regarding the future they believe that definite improvement has started in the general lines of business that contribute so largely to cotton goods' consuming power.

Active Upward Price Movement.

In an effort to bring cloth prices nearer a parity with the higher cost of cotton, there has been an active upward price revision under way in the past few weeks. The work of advancing prices has been less difficult to accomplish in the gray goods markets than in finished goods lines. There has been a steady consumption of staple print cloths, sheetings wanted for bag purposes, many of the cloths needed for general manufacturing purposes, and a fair consumption of goods for general finishing and converting.

The movement in finished lines has been improving recently, but it has been slow in several directions wherever attempts have been made to advance prices. The abundant production has enabled buyers to rely upon supplies to a degree that has left them without a real urge to pay more. The fact that prices for cloths have been patently below the cost of replacing them at the producing end has not counted with them so long as they have been able to cover their needs from day to day or week to week without serious difficulty.

Trade Owns Low Priced Goods.

The goods in hand and on order in distributing and retail channels, and in manufacturing channels, were purchased at prices below the cost of replacement, based upon cotton prices in the past two months ago.

Competition is keeping plants in full operation, many of them running day and night, has made the supply superabundant in some lines, so that while prices have been nominally advanced, sales have been going on below the higher price in order to move out stock goods and hold stocks down. Both wholesalers and retailers are going into their September and October business with plenty of low priced goods in stock or under order.

Irregularity in Finished Goods.

Finishing plants began to get over their rush two months ago and are now occupied to a two-thirds capacity. This makes for very severe

competition in that division in the efforts to secure the limited business obtaining. Many cloths, such as wide sheetings, have been made in excess of normal consumption needs and while prices are now on a higher list basis the manufacturers complain that they are operating on an unprofitable basis.

One of the leading percale printers advanced prices a week ago. Others did not follow because they found a resistance to any advance and no great rush to buy at the old prices. There have been advances named on bleached cottons, yet traders state that on a firm order a buyer need not pay the advance as there are plenty who are ready to sell at the best prices available. Duck has been quoted at much higher prices than it has brought in actual sale in volume, for the reason that jobbers and others have been glad to fill orders on old levels to the extent of their holdings. From these facts it will be seen that there is no great confidence in higher prices despite the general belief in the trade that the actual movement of goods may be large for two months to come.

What Trade Has Lost.

The cotton goods trade has lost the price premiership it occupied so long as the staple was valued relatively lower than any other textile fiber. Goods went into many new uses because of the low price. To some extent the gains made in that direction will be maintained. Something besides price will now be required to maintain cotton in the relatively strong position it has occupied up to this time, since the last crop came to hand, for while close prices will be inevitable because of the large volume of cotton mill output, cotton cloths are certain to fall back again to the competitive position they occupied when cotton was 18 cents and higher in recent years.

Merchants recognize, on the other hand, that the higher price of the staple will improve sales prospects in the Southern field, and will aid materially in offsetting the loss due to floods in the Valley. It will have an indirect effect, with other bettered agricultural conditions, in eliminating uncertainties of distribution in farming sections.

Incentive for Buying Cotton.

Manufacturers of cotton goods will have no incentive to buy cotton in any large way at the inception of the season. A year ago lower prices were expected, and buying did not start promptly then. It can be definitely stated that for at least three months of this new cotton year there will not be any very great contraction in the consumption of cotton in the mills. Last season's consumption will probably prove to have been the largest ever known despite the inactivity of nearly 4,000,000 installed spindles. This was possible, of course, because of the very general operation of mills night and day in the South.

Nor is it expected that foreign mills will be under any special urge to buy cotton early. They already have a larger supply than a year ago. It is only within a month or so that Manchester (Eng.) trade has become active.

A great many mill men and not a

few selling agents feel that speculation cannot be maintained to a degree that will support raw cotton prices as high as they have recently been. Southern cotton manufacturers as a whole are more bullish in their reports to selling agents, than others outside the cotton belt have been, yet several of them have said for some time past that a price reaction is inevitable and they hope to see 15 cents cotton on the future boards before the end of the year.

George Harris Urges Passage of Georgia Cotton Futures Laws

Atlanta, Ga.—"Cotton Mills cannot operate without cotton exchanges, which afford opportunities of trading in futures, unless mills put themselves in the position of speculators and gamblers," declared George S. Harris, president of the Exposition Cotton Mills, in urging the passage of the Rivers' cotton future contracts bill now pending before the judiciary committee of the State senate. Unless this measure is passed, he states, Georgia's textile interests will continue under a most serious handicap as compared with their competitors in the Carolinas and elsewhere, Mr. Harris comments further:

"The mills are now selling their product for delivery in October and other fall months. They must constantly sell their goods on a basis of future delivery. Let us see how it works:

"A mill must accept orders today

for cloth to be delivered in November and December. The contract provides that the cloth shall not only be delivered at that time, but that it must be made of new crop cotton, which today does not actually exist and for which there is no known price. In order to quote a price for these deliveries the mill must know at what price it can buy cotton in October. To know this price in advance the mill must buy a future contract for cotton to be delivered in October, which contract must be enforceable on both buyer and seller.

"When October rolls around, the mill, which has had very necessary price insurance through its futures contract, will sell the contract and buy the actual spot cotton.

"Most of the opposition to a law permitting necessary trading in cotton futures contracts is due to a misunderstanding on the part of people who do not discriminate between legitimate and necessary trading and bucket shop or speculative trading. Without a cotton future market the mills would be forced into tremendous and no doubt disastrous speculation.

"Southern cotton mills, particularly those manufacturing coarse goods, as a rule operate on a very close margin, usually from 1 to 2 cents a pound, which represents a maximum possibility of profit. Such a margin does not permit the taking of chances on price fluctuations. Therefore, it is necessary that the mills have price protection, which in reality is nothing more or less than price insurance.

"It is contended, and I think most truthfully, that if the Rivers' bill is passed, a Georgia city will be designated as a delivery point on New York contracts. This would mean a large saving to the cotton growers, for under existing conditions the cotton buyer invariably deducts the freight costs from the place of purchase to New York before he fixes a price to the farmer.

"There was a time when the facilities of the South were inadequate for the storing, handling and financing of the cotton crop, which necessarily made it mandatory that cotton should be delivered in New York where such facilities were to be had. That time has now passed and there are adequate facilities for the storing of cotton, adequate railway facilities and ample financial means for the South to handle a commodity which is grown on the South and which is its largest staple crop. There is now no more necessity that cotton should be delivered in New York than there is for it to be delivered in Alaska.

"Should we have Southern warehouse deliveries against future contracts, then the cotton mills of our State would have the opportunity of buying their commodities based on the New York Cotton Exchange and taking deliveries almost at their own door. Under the cotton futures act of the United States, when a contract for a future delivery is made on any of the recognized exchanges, then actual delivery of the spot cotton must be made at the termination of the time as called for

in the contract. The machinery for enforcing the cotton futures act is under the supervision of the secretary of agriculture, and the act provides that actual delivery must be made.

"The Federal Trade Commission has recommended that the rules of New York Cotton Exchange be so amended as to provide for the delivery of cotton against the New York future contract at designated points in the South instead of at New York.

"Here is what the Federal Trade Commission says on that subject:

"The commission recommends with reference to Southern deliveries: (1) That the number of Southern delivery points selected for New York deliveries be few and that at least for the present they be only Atlantic and Gulf ports. (2) That the delivery, inspection and certification of cotton at Southern ports shall be under rigid Government supervision, and that deliveries under the Federal Warehouse Act. Also, that the rules of the New York Cotton Exchange be amended so as to provide for the delivery of cotton against the New York future contract at designated points in the South instead of at New York.

"Georgia's greatest industry is urging the enactment of the Rivers' bill into law, not in order that speculators may be afforded an opportunity to gamble, but in order that these great, vital business interests may be provided with the necessary facilities for obtaining price insurance."



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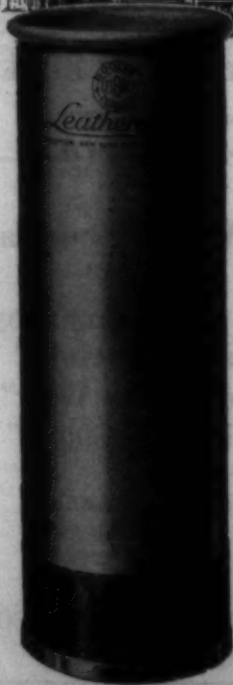
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Visiting Europe

(Continued from Page 18)

to rain and when we got off at the station, which is opposite the boat landing, we were in the midst of a real storm.

On the trip to Switzerland and Italy we left most of our grips in Paris but now we had all of them with several new ones added and it was a real job to get the grips through the customs and on to the ship.

When we finally landed it was upon the top deck of the channel boat, and as it was almost ready to pull out and the porters not only made excessive charges but refused to carry the grips to a lower deck where they would be out of the rain.

I was exhausted by the time I carried all of the baggage to another deck but it was raining very hard and I could not leave them on the top deck.

By the time I had finished the job the boat had stuck its nose into the storm and was headed for Dover, England, and "one hour of hell" began.

The boat rocked from side to side, also seemed to stand on the front end and then on the rear end. Channel boats are very shallow and shake with every movement of the waves.

The ladies of our party had disappeared the minute we reached the boat and I afterwards found that downstairs there was a room with benches on which they could lie. Mrs. Clark was seasick from the time the boat moved.

I had not had any lunch on the train and never having been seasick in my life, went down in the dining room for lunch, which was a sad mistake. There were only two other people who ate lunch on the boat that day.

When I came up from lunch, I witnessed a scene such as I have never seen before and hope I will never see again.

Men, women and children sat or lay everywhere on the deck or in the rooms and in their sickness cared not how they sat or how they lay.

All had large yellow bowls and ship attendants were emptying the bowls and returning them to the users. I saw attendants who had to use the bowls that they were carrying.

The English channel crossing is always bad but we were crossing in the midst of a terrific storm and at intervals waves broke not only upon the decks but over the top of the ship and such water as could get through the end hatches ran down the deck in rivulets sometimes one inch deep.

Those who sat or lay in the path of such water were so sick that they cared not and let it run over them on their baggage.

I went into the smoking room but sick men lay or sprawled everywhere and I could not stand the stench.

I went downstairs but it was the same there and as I started up one pair of steps, a beautiful and well dressed girl vomited all over same and I had to find another way out.

I began to feel a little shaky and hunted a seat and finally found room on a bench with three people who were in misery and all of whom had yellow bowls.

I had crossed the Atlantic three times, one of them in rough weather, and I had been up and down our coast with never a trace of seasickness and did not believe that I could become seasick, but I began to feel hot and then cold by turns.

I fanned myself with my hat and fought hard and had come in sight of the English coast when I went under.

All the lunch I ate on that boat came up; in fact, it felt like I had brought up all that I had consumed in Europe and was going down after some of those I had in America before I left.

Somebody had left a suit case back of the bench but I was so sick that I would not have moved it, if he had been standing over me with a gun and I just about ruined it.

When you are seasick you are sick and there is nothing else like it. Most of those on board would not have moved or made any effort to save themselves if they had been told that the boat was sinking.

The last fifteen minutes in that boat seemed like a year and even after the boat was at the dock, many continued to sit or lay where they were.

From Calais, France, to Dover, England, was "one hour of hell" and if I ever cross the channel again it will be through the air.

Mrs. Clark was so sick that we missed the first train but fortunately had a whole care to ourselves on the second one and reached London about 6 p. m.

We passed through a beautiful section of England with sheep grazing upon the hills in almost countless numbers, but we were feeling too badly to pay much attention to scenery.

Arriving at the Regent Palace Hotel in London, we were told that our reservations were for the next day and we had to go to the Royal Palace Hotel for the night.

The rates at the Regent Palace Hotel are very reasonable and it is located in the very center of London, but it is the busiest hotel I ever saw.

In the afternoon at 5 o'clock all the flappers and the drug store cowboys come to the Regent Palace Hotel for tea, and although they have an immense tea room, it is difficult to get a seat.

Every evening people had to stand in line in order to get into the dining rooms.

It is not in the same class as such hotels as the Savoy and the Cecil, but is clean and well managed.

(Continued next week)

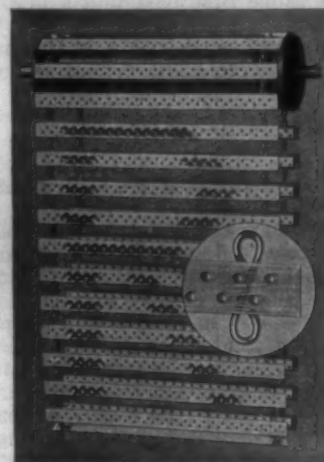
Watching the Other Fellow

(Continued from Page 14)

on the tight pulley and running good.

The most interesting thing I noticed about them was the speed they were running. They surely must have lost the catalogue or ignored it altogether when they set the speed here, as the front roll was running away below standard ac-

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and had piecing of the sliver but all the frames seemed to have the belt cording to my books. But I soon found that it was not so much in the speed as it was with the steadiness with which they ran, as they were keeping up with the cards and having some time to spare. The front roll was making 250 revolutions per minute and the frames were equipped with leather covered ball bearing top rolls. I was told that the rolls were all taken out every week and the steel rolls given a good cleaning and rubbing with pumice stone and new varnish put on all the top rolls.

Another thing that impressed me very good was the slackness of the ends between the front roll and the trumpets. This, of course, was due to keeping the bone of the trumpet to suit the size of the sliver and running with a very small amount of draft between the front and calender roll. I was sure that nobody was beating me here, but I found that they were, as they claimed they were getting by without any draft at all. I also found that they had learned a way to get by without keeping the belts so tight, which wears out the bearings and loose pulleys, especially if they are not kept well oiled.

Instead of using a single belt and keeping it as tight as a fiddle string to get it to pull, they were using a light double belt and running it slack. So they were not only saving machine repairs but reducing power cost also.

I did not see any ends down and but very little creeling during my stay around the drawing frames. The operatives put in most of the time cleaning. One reason why they wound so much time to clean was the system which they used for creeling the frames. Now instead of putting in a can when one would run out, they used the same system employed by the slubber tenders, and creel the whole frame at once. This saves a great deal of walking for the operators, and also keeps the frames running much steadier, besides avoids lots of bad work from continuous piecing of the ends in the back, and has several advantages over the old way. I was told that they picked both top and bottom clearers every two hours and I noticed in particular that they had a special can marked and kept in a convenient place to put the clearer waste in. Instead of throwing it on the floor to get mixed up with the other waste which is the custom in the majority of the mills, I was told that this waste was cleaned slightly and sold for white lint.

A Day Around the Slubbers and Roving Frames.

The roving process consisted of 12x6-inch slubbers, 10x5-inch intermediates and 7x3½-inch speeders. The first thing I did when I reached the roving department was to examine a good many of the bobbins from several of the bins and boxes. My object being to see what condition they were kept in and also how much variation there was in the diameters of any particular lot of bobbins. Well, I did not find any variation, as they had gone over them and had them all made one

size. I did not find any broken or split bobbins in use and they had a regular bobbin cleaning outfit, which was a revolving brush that fit the inside of the bobbins and the condition of the bobbins showed that they made good use of the machine by keeping the bobbins clean. I did not find any dirty rolls either top or bottom. I examined them thoroughly, as laps of any kind on the steel rolls will invariably cause lumpy or uneven roving. I did not find any, but found out why, as the oiler was required to go over all the rolls twice each day and remove them. They had two section men and I noticed that they seem to have something to do all the time.

I was told that the first thing they did every morning after the machine was started and the help placed was to give the belts a good cleaning and a little belt dressing. This included the cone belts also. After they got through with this job they went over the rolls and took out all the bad ones and replaced them with new ones and took the old ones to the roll shop to be covered. I noticed all the cone belts started 1½ inches from the end of the cones at the commencing of the doff. This was done to keep the cone belt from slipping and give a more even tension on the roving between the front roll and the flyer. This is good practice, as the belt contact is so little on the small end of the bottom cone and the cone being a convex shape, the belt will slip on starting a doff if started too near the end. I was told that they overhauled one frame each week. This included taking out the steel rolls and spindles, giving the rolls a good cleaning and the bolsters a good swabbing, also lining and leveling of the frame. This gets them over all the frames every six months which keeps them in good running order.

I spent a good deal of my time watching the speeder tenders do their work, especially creeling the frames. This being the most important part of the work, but usually done in the most careless manner. I was very anxious to see how it was done in mills that are run up-to-date. The usual careless practice when creeling in the back of the frames is to start the new strand of roving through the roving traverse eye with the other two strands, or twist the new strands to one of the others and break the old strand off, leaving a tail about six inches long, which is just as bad and practically the same thing. But it is not done this way in this mill. The way I found them doing it here, they were connecting the end of the new bobbin with the end running out and giving it a slight roll together with the finger and thumb. This makes a good piecing that will go through the rolls, and will give no trouble in any of the subsequent processes. The speeder tenders did not drop roving on the floor and let it stay there for the sweeper to sweep up with the dirty cotton, and they did not throw the clearer waste on the floor when they picked the clearers. They had a box for each kind of waste they made and they put what they made in the box it belonged in.



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Defects in the Dyeing and Bleaching of Knit Goods

(Continued from Page 16)

thus require but a short boil in soda ash, followed by a dilute lime bath. The specks will generally be decolorized long before the goods are sufficiently whitened to sell as bleached goods.

It is of course during the chemicking that the goods are in most danger of being tendered. Knit goods are chemicked in three different ways, by passing the goods through bleach liquor, squeezing and piling in boxes for an hour or more often where the goods are to so; by allowing the goods to lay totally submerged in a tank of bleach and also by running in the regular roll machine containing bleach liquor. The first method is one that must be carefully watched as chloride of lime bleaches very rapidly when the goods are exposed to the air in this manner. There is also danger of certain parts of the bleach becoming tendered owing to an overbleach. The second method is to be preferred for several reasons, one of which is that the process is more easily controlled, and the other that the goods are handled less. It should always be the aim of the bleacher to handle the goods as little as possible, for they are very easily stained. Bleaching in the roll machine is carried out be dyed after bleaching, as in this case they are boiled out, bleached and dyed in the same machine.

When bleaching rolls preliminary to dyeing it is necessary that the different rolls of the batch are bleached alike, or different shades will be noticed after dyeing. Thus in order to bleach evenly it is necessary to introduce the chloride of lime in such a manner that it is well distributed throughout the whole machine. The best manner of doing this is to run a perforated pipe from the bleach tank, under the surface of the liquor in the steam box of the kettle. It is perhaps better to run the pipe from a barrel, into which the bleach solution can be put, as it is easier to measure in that case. A method which is very bad, but which at the same time is much practiced, is to pour the bleach into the kettles from pails. It is both a laborious and a dangerous method, as it is extremely difficult to put the bleach in the machine in this manner without getting the concentrated solution onto the cloth. In order to give an example of how this would work out I will cite an extreme case. A few years ago the writer entered into a discussion as to the best method of entering bleach in a machine already containing the goods. The bleacher contended that it would not matter if the bleach was all poured onto the roll as the machine, if kept running all the time, would distribute the bleach very quickly. In order to test out the theory we poured about ten pails of lime solution at 8 degrees Tw. directly onto a roll and then proceeded with the bleaching. The roll which had been treated in this manner became white much quicker than the others,

and after dyeing showed up lighter than the rest of the batch and was also a little uneven.

After the goods have been chemicked they are rinsed and soured. The only danger which lies in the souring process is in leaving chlorine and acid residues in the fabric. Chlorine left in the goods is an indication that the sour bath is not strong enough. The bulk of bleached goods are probably soured with sulphuric acid, but where goods are to be dyed after bleaching it is much better to sour with hydrochloric, as in that case no lime sulphate is left on the fibre. It is of course needless to say that the goods after having an acid sour should be well rinsed.

Many bleachers are troubled with stained goods and especially where the bleachery is in the same room as the dyehouse. Small particles of dye fling through the air, dirty extractors and trucks are a source of damaged goods. Iron stains are also frequently met with but are generally easy to detect and trace.

The dyeing of black, which seems to be such a simple matter, is frequently a source of trouble. Bronzy blacks are of frequent occurrence, the roll after dyeing sometimes showing bronzy streaks across them. When the ordinary direct blacks have been used such a defect can generally be remedied by the addition of a little soda to the bath. When dyeing developed black it is necessary to use some soda in the developing bath in order to prevent the black from turning brown. The bronziness in this case is due to the formation of Bismarck brown by the action of the nitrous acid on the diamine.

Another trouble which is often experienced, especially on yarns and stock for sweaters, is the color rubbing. The trouble with using cotton in sweaters is that the cotton must be colored to the same depth as the worsted, and as the worsted is generally a pretty dark shade, it is difficult to get the cotton sufficiently full without the color crocking. When dyeing very dark colors on cotton an addition of soluble oil to the bath will assist in preventing crocking. A little soda is also good in this respect.

After the goods have been bleached or dyed they must be softened. Softening, if properly applied, not only softens the goods but sometimes improves the shade. This is especially true of sulphur black dyeings. When using Turkey Red Oil as a softener it must be remembered that an excess is very bad, as it imparts a castor oil odor to the goods, and they will always feel damp. On bleached goods it is of course necessary to select a softener which will not detract from the white produced. A comparison of the different softeners on bleached goods will show some surprising differences.

Two small boys were puzzling their brains to invent a new game. At last one of them said eagerly: "I know, Nilly, let's see who can make the ugliest face."

"Go on! No chance!" was the reply. "Look what a start you've got!" —American Boy.

BETTER BOBBINS

Warp bobbins, either straight or filling line.

QUICKER SERVICE

Card room bobbins, specified diameter, carefully gauged so that you will get best results.

LASTING SATISFACTION

Filling bobbins of all styles for plain or automatic looms with shellac finish or enameled, to meet any conditioning of the yarn.

SPOOLS OF EVERY STYLE

Manufactured of wood or fiber with reinforcements to meet every requirement.

CONES FOR WINDING MACHINERY

The

WALTER L. PARKERCO.

Manufacturers and Enamellers

731 Dutton Street,
Lowell Massachusetts



From Microscope To Loom

(Continued on Page 25)

The problems in which we may first hope to advance are those which relate to fibre strength and its dependence on humidity, which have already been discussed. In this connection one should not think of the breaking strength. This is usually considered, not because it is the most important elastic property, but because it is the most easily determined, and in reality in most fibres it is great enough to satisfy all needs. The breaking strength is not, properly speaking, a "true constant of the material," but a chance property, depending upon the presence of fissures and similar irregularities. For the practical behavior of the alterations which take place in the fibre under strain and torsion, as well as the influence of humidity on these effects, is the most important. The investigations which have been carried out so far indicate that the behavior of fibres is very different from that of metals. In metals the most important processes take place in the crystals, while in the cellulose fibres the substance in which the crystals are embedded seems to play the important part. A further important difference between a metal wire and an artificial silk filament is due to the important role played by the surface in the physical behavior of the latter. We do not know at present to what extent this holds good in the case of other organic fibres. — Manchester Guardian.

Stafford Thread Cutter

The current issue of "Cotton Chats," published by the Draper Corporation, of Hopedale, Mass., contains an interesting description of the new Stafford Thread Cutter, which has been perfected as the companion piece of the Midget Feeler. The article says, "An attendant evil of thread cutter operation has been the chance that cut or ejected filling ends might be whipped into the cloth. To cure this attendant evil many special devices have been tried with indifferent success.

"The new Stafford Thread Cutter entirely removes all danger of double picks from whipped-in ends and meets all demands of a modern loomed thread cutter.

How It Operates.

"The cutter is placed on the loom under the battery, not between the loom side and cloth. It is fastened to the transferrer stud and moves into operating position only when the latch finger is raised to cause a bobbin transfer. The knife is operated by the transferrer fork when actually making the bobbin transfer. It never cuts the filling unless a transfer is completed. There is no chance for mispicks from cut filling. It grips the cut filling end still connected with the selvage and lifts it out of the shuttle box, away from any contact with the shuttle.

"This eliminates the first chance of a loose filling end being drawn back into the cloth. The firm grip of the cutter upon this filling end is retained until after operation of the Temple thread cutter has severed

the filling at the selvage. The loose piece then falls outside the loom hanging from the thread cutter above the bobbin can, into which the waste end falls when the thread cutter is opened for the next operation.

"This eliminates the second chance of a loose end being whipped into the cloth. It cuts the filling near the eye of the shuttle. This leaves a filling end so short that it is easily drawn out of the eye by the ejected bobbin. This prevents the shuttle from drawing a trailing end into the cloth and eliminates the third chance for a defect in the cloth from whipped-in filling waste. These three chances for whipped-in filling waste cover the ordinary range of such mishaps. That a new device insures their elimination should be good news.

Textile School Aids Arkwrights

The textile school of North Carolina State College has placed their research laboratories and experimental rooms at the disposal of all candidates of members into The Arkwrights, a club organized by and composed of members of the Southern Textile Association, and consists of those members who have completed some distinctive piece of research work in the textile field.

L. R. Gilbert, president of the Southern Textile Association, was one of the first to take advantage of these well-equipped laboratories. He spent two days during the past week working up data for his Arkwright thesis.

Mr. Gilbert, a graduate of the State College Textile School, is now manager and treasurer of the Audrey Spinning Mills, We'don, N. C., says that the action of his alma mater will materially aid the members of the Southern Textile Association in establishing definite and profitable research work in the textile field.

The laboratories, he goes further to say, are modernly equipped, which means that the most difficult and tedious research can be made with comparative ease.

The equipment is to be used for making yarns to be tested for breaking strength, elasticity, and evenness under conditions comparable with mill practice. The tests will be made from cotton supplied by the mills of the State and by the experimental farm at State College.

The textile school at State College has recently been enlarged and the installation of equipment has been fully completed. The mills of the State of North Carolina are now at liberty to send their own men to the textile school to carry out any tests they wish to make and the laboratory will be turned over to them entirely. If aid is desired from the college textile faculty, it is freely and cheerfully given toward the advancement of the textile industry of North Carolina.

Clerk: "This rain will help the farmers."

Mrs. O'Brien: "Sure, an hour of this will do more good in five minutes than a month of it would do in a week at any other time."

J. C. BROOKS,
Chairman of the Board
W. H. WILLEY,
President



D. W. BROOKS,
Vice-President
NORMAN MONAGHAN,
Secretary-Treasurer

The Reward of Age

Our thirty-four years experience as cotton merchants, distinguishes us as the oldest cotton firm in the South. An organization, such as ours, whose reputation has been built on honest, intelligent service, can not afford to guess. To know—that is the reward of age.

Capital \$1,000,000.00

NEWBURGER
COTTON COMPANY

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The Verdict is Unanimous
H.P.C. WARP DRESSING
is "HART" TO BEAT!

THE HART PRODUCTS CORP. 1440 B'WAY, N.Y.

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STEEL BELT LACING



MOST belt troubles start at the joint. But with Alligator Steel Belt Lacing the teeth clinch through the belt and compressing it in a vise-like grip of steel. This powerful grip forestalls trouble and makes it "the strongest belt lacing on earth." Generally lasts the full life of the belt.

Sold by wholesalers and retailers throughout the world

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Accident Prevention Depends On Overseer's Vigilance

(Continued from Page 7)

varying hazards between departments and any increase in accidents in a particular department cannot be laid to increased hazards nor the influence of other departments. It is needless to say that the safety supervisor, in his own interest, does not use any more black ink on these lines than is necessary, as the chart is watched by critical eyes that will correct the slightest error or report the slightest doubt.

Augmenting the work of a safety organization, during the winter months it is well to hold safety meetings at night for foremen, at which accident rates may be discussed and outside speakers brought in to talk on some particular phase of safety. In addition to this, to assure good attendance at such meetings it is well to provide vaudeville entertainment, etc.

In supporting my theory that the foreman is the key man or "the Keystone of Textile Safety," let me point out the effect upon accidents and compensation after properly converting foreman group to safety and instructing them. On the chart you will see that after each meeting is held there is a resulting decline in accident rates and payments, and that all drops, although followed by some reaction, are for the greater part continual. Analogous to this, I have also found that the meetings of the workers' safety committee in each department has a direct and immediate result upon their accident rate.

Minor Accidents.

With the establishment of a working safety organization there will result not only a reduction in lost time accidents, as shown by my third chart, but an increase up to 100 per cent in the number of minor accidents reported. It is interesting to note what causes the latter and the results. The cause is fundamentally the safety drive to have all accidents treated actually no greater number of minor accidents occur, but those that do are treated rather than neglected and the number reported is therefore greater. The result is a complete reduction of lost-time infection cases, the development of confidence in the first aid department with its corresponding influence on the health of the workers, and lastly, the broader promotion of safety by the nurse through her confidential talks with the workers regarding their injuries. This increase in the minor accidents reported continues for some time until the safety movement reaches its point of saturation.

It has been the opinion of many practicing physicians and even of those doing part-time industrial work, that a safety movement and health campaign is not wholly beneficial to their practice. On the contrary, I have found that while the plant or clinic physician may lose for himself and others the individual care of many accident cases, and while he may treat many medical cases at an agreed rate, he has not only the greatest opportunity to im-

prove health in the particular plant and assist in the safety movement, but further, through the increase in good will toward the first aid department, he may assist himself and his associate physicians, and be a healthful benefit to the whole locality which that industry represents.

Co-operation by the plant physician is most essential in reducing the periods of lost time. This co-operation may come in many ways: For example, by having the physician give or secure the latest and proper methods of treatment by his securing X-ray pictures of all doubtful cases, and by his deciding definitely the exact that much lost time in the future is saved by the good nature of the case assures judgment of a physician in allowing a little longer rest for the patient. The physician is a professional man, and the employees learn to respect him. To him I shall always look for a good influence among our workers for safety.

Duck for Awnings

(By Clarke I. Weikert, National Field Director, The National Tent & Awning Manufacturers' Association, in Daily News Record.)

It is stated by certain cotton mill representatives that the tent and awning industry uses 25 per cent of the cotton duck produced in the country. It is my opinion that, of the cotton duck, one-third is used in awnings and of the amount produced a small proportion, not more than 15 per cent, is army duck. This of course, is merely my opinion.

"From a standpoint of awning use, I can say it is increasing rapidly each year, depending upon the weather. Three years ago, there was a tremendous increase noted on account of the hot season, but the last two years, being cool seasons, have slowed up the demand.

It is interesting to note that, once an awning is sold to a resident, it becomes a continual use. In other words, as soon as the occupant is sold awnings, they continue to replace these awnings year after year.

Some section of the country are stronger awning sections than others, because of two reasons: first, weather, second, the selling caliber of the awning establishment in the community. Cleveland and Miami are the best "awnings" cities in the United States. Even in the Northern States, there is a continual increase in the volume of awnings, also an increase of awnings on residential streets.

The increase of awnings use is going to depend upon salesmanship, for the occupants of the home must be sold the value of an awning. First, that it is a necessity because it protects the rugs, draperies and furniture from fading and sun-burn. It involves the windows being kept open in a rain storm, thereby keeping the house cool. It keeps the sun off the window glass, keeping the house cool, and especially is this true of a bungalow which would be a hot box if not for the awnings.

Residential folk must be told that awnings are not a luxury and that they add to the landscape and architecture of the home.

EMMONS LOOM HARNESS COMPANY

The Largest Manufacturers of Loom Harness and Reeds in America

Loom Harness and Reeds

Slasher and Striking Combs, Warps and Leice Reeds,
Beamer and Dresser Hecks, Mending Eyes, Jacquard
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Round trip fare Charlotte to Atlantic City, N. J., \$20.60, to
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Tickets will be on sale one day each week from June 21st to October 6th, and are limited 17 days from date of sale. Stop overs allowed on return trip at Philadelphia, Baltimore and Washington.

Call on nearest Seaboard ticket agent for dates of sale and other information or apply to

E. Eskridge, CA.
Charlotte, N. C.

John T. West, DPA.
Raleigh, N. C.

The Care of Motor Insulation

(Continued from Page 8)

In case one of the other liquids must be used, it should be applied out of doors or in a well-ventilated room. It must be remembered that gasoline or naphtha vapor is heavier than air will flow into pits, basements, etc., and may remain there for hours or even days. The casual smoker, a spark from a hammer or chisel, or even from a shoe nail may cause a serious explosion. Therefore, proper ventilation of the room is essential and may require specially piped ventilating fans. In using carbon tetrachloride the explosion hazard is eliminated, but some ventilation is required to remove the vapor, which might affect the safety and comfort of the workmen.

There are several good methods of applying the cleansing liquid. A cloth, saturated in the liquid, may be used to wipe the coils. A paint brush, dipped in carbon tetrachloride, is handy to get into corners and crevices, and between small coils. Care should be taken if coils or small machines were dipped into the liquid.

Probably the best method of applying the liquid is to spray it on. A spray gun, paint spraying appliance, or an ordinary blow torch are often used with good results, although the latter device is apt to give a heavier spray than desirable.

An atomizer will give excellent results, using a pressure of about 80 lb. if the insulation is in good condition, or 40 to 50 lb. if the insulation is old. The atomizer should be held not more than 5 or 6 inches away from the coils.

While the insulation will dry quickly at ordinary room temperature after such cleaning methods, it is highly desirable to heat it to drive off all moisture before applying varnish. This heating or drying-out process has already been discussed and, therefore, need only be mentioned here.

If the motor can be spared from service long enough, the insulation should be dried out by heating to from 90 to 100 deg. C. While warm, a high-grade insulating varnish should be applied. For severe acid, alkali, or moisture conditions, a black plastic baking varnish is best, while for conditions where oil or dusts are present, a clear or yellow varnish should be used.

The varnish may be sprayed or brushed on. For small stators or rotors, it is best to dip the windings into the varnish, cleaning off the adjacent metal parts afterwards by using a solvent of the varnish. After applying the varnish, the best results are obtained by baking for 6 to 7 hours at about 100 deg. C. Experience was particular conditions of operation, of the condition of the insulation, may indicate the desirability of applying a second coat of the same varnish, followed again by 6 to 7 hours of baking at 100 deg. C.

If the machine must be put back in service quickly, or if facilities are not available for baking, fairly good results will be obtained by applying one of the quick-drying black or clear varnishes which dry in a few hours at ordinary room temperatures.

Insulation resistance readings should be taken, as explained previously, to determine whether the winding is in satisfactory condition for applying a high-potential test. After this test, it is good practice to run the motor without load for a short time, to make certain that everything has been connected, assembled, and adjusted properly.

Standard Textile Products Co.

New York. — Profit of Standard Textile Products Company for quarter ended July 2, 1927, was \$218,084, after interest and depreciation, against \$151,724 in preceding quarter. Gross sales were greater than at this period for some years.

"Business during the second quarter," President Broadbent said in his report to stockholders, "has been maintained on a capacity basis and orders are still being received in excess of normal for this season of the year. Consequently unfilled orders are greater than at this period for some years."

"During the last quarter there has been a further reduction in inventories, which together with operating profits, has permitted us to reduce our bank loans \$1,000,000. Therefore, we are entirely clear of notes payable to banks as of July 2, 1927. Bonded indebtedness was also reduced by \$244,000."

"The net amount added to stockholders' equity during the last quarter, after interest and depreciation, namely, \$237,634, represents net operating profit of \$218,084 plus discount on bonds purchased for retirement of \$19,550. The total addition to stockholders' equity for the first six months of 1927 is \$398,818, or \$83,818 over six months' requirements for the preferred "A" and "B" stock dividends."

Changing to Steel Heddles on the Increase

One of the largest orders for loom harness in recent years was placed last week with Hampton Smith, manager Southern plant and office, Steel Heddle Manufacturing Company, Greenville, S. C., by the Dan River Cotton Mills of Danville, Va., for improved type of steel loom harness as equipment for a number of their looms, and which required a total of some thing over three and a half million heddles.

The type of loom harness used in this equipment was originated and invented by Mr. Smith and not only gives satisfactory results and lasts for eighteen to twenty years but also enables the weave room organization to change quickly from any fabric construction to any other fabric within the range of the loom.

During the past few years over one hundred mills in the South have placed orders with Mr. Smith adopting this improved type of steel loom harness and this increasing number of mills using same has made it necessary to enlarge the company's plant four times during this period. Several other mills have recently begun equipping with this improved loom harness in replacement of other kinds formerly used.

— DEPENDENCE —

Profits in most manufacturing plants depend on the steady operation of production units.

LEATHER BELTING is the most economical medium of power transmission, and directly contributes to profit account.

"AKRON" Leather Belting comprises all the various types required in industry. Its super-strength, combined with flexibility and pulley gripping surface, insures maximum machine speeds at lowest transmission cost.

Proper belt application is an engineering problem of vital importance, because it bears on production.

"AKRON"—"CASCADE" and "SPIN TWIST" brands have demonstrated practical economy in Textile Mills!

Your orders are solicited

Our guarantee protects your purchase

We Ship Quick!

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Frost Proof Closets

Over 300,000 giving satisfaction. Save water; Require no pit; Simple in the extreme. The most durable water closet made. In service winter and summer.

Enameled roll flushing rim bowls.

Heavy brass valves.

Strong hardwood seat.

Heavy riveted tank.

Malleable seat castings will not break.

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EVERYWHERE**

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SELLING AGENTS for SOUTHERN COTTON GOODS

Deering, Milliken & Co., Inc.

79-83 Leonard Street
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Selling Agents for Southern Mills
Sheetings, Print Cloth, Drills, Twills, Ducks

W. H. LANGLEY & CO.

COMMISSION MERCHANTS

57 Worth St.

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Sole Selling Agents For

Langley Mills, Seminole Mills, Aiken Mills, Anderson Cotton Mills,
Strickland Cotton Mills, Moultrie Cotton Mills, Poulton Cotton Mills,
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WOODWARD, BALDWIN & CO.

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Cincinnati Minneapolis

Wellington, Sears & Company

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Specializing in Selling Cotton Mill Products

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Our Export Department Serves 69 Foreign Countries

CURRAN & BARRY

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New York, N. Y.

REEVES BROTHERS, INC.

55 Leonard Street, New York

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New England office: Middletown, Conn.

Selling Agents for the following Mills:

Cotton Yarns, Combed Peeler, Carded Singles and Ply, Audrey Spinning Co.,
Weldon, N. C., Mandeville Mills, Carrollton, Ga., Mills Mill, No. 2, Woodruff, S. C.,
Wabena Mills, Lexington, N. C., White Hall Yarn Mills, White Hall, Ga.,
Gray Goods, Print Cloths, Twills, Sheetings, Pajama Checks, Arcadia Mills,
Spartanburg, S. C., Clinton Cotton Mills, Clinton, S. C., Hermitage Cotton Mills,
Camden, S. C., Mills Mill, Greenville, S. C., Osage Mfg. Co., Bessemer City, N. C.

Cotton Goods

New York.—The cotton goods markets were generally quiet during the week. The drop in cotton prices and the disposition of buyers to wait for the government report on cotton conditions made for less activity in gray goods. Trade in finished goods was steady and a fair volume of orders were reported. Sales of printed goods from stock were moderately large. A moderate amount of business was placed on wash goods for spring. Cotton blankets and flannels continued firm at the higher price levels. Tire fabrics were steady with some new orders placed for the third quarter of the year. Sales of fine and fancy goods showed some increase. Rayon and cotton mixtures were in fairly good demand.

There were some easier prices on odd lots of print cloths, but no one showed interest enough to bid freely and transactions were light. It was possible to buy 72x76s at 9½c from first hands, 68x72s at 8½c for late August and 8½c for nearer days, 5.50s at 7½c, and 6.25s at 6½c, spots. While these prices showed some considerable shading, they might be justified if the drop represented actual cotton rather than a speculative movement. The general disposition was to let the day pass and await what the future will show.

Sheeting prices appeared to be steady and unchanged, with here and there an indication that a quotation was considered nominal. On 31-inch, 48x48, 5.00 yard, 7 cents, net, the general price; 36-inch, 40x40, 6.15 yard, sold for September at 5½ cents, net; 8½ to three-quarters, net, last on 37-inch, 48x48, 4.00 yard; efforts to buy a few quick 36-inch, 56x60, 4.00 yard, emphasizes the scarcity of this style for other than late contract, which were last quoted at 9¼ to one-half, net. Some 40-inch, 56x56, 4.00 yard were reported sold at 9½, net, quick.

While most centers reported interest limited, there were one or two quarters where better inquiry for carded broadcloths was noted. One house reported bids of 10 cents for about ten thousand pieces of the 90x60; most sellers were asking 10½ or one-quarter, depending upon the make, although here were indications some goods had sold at even money. This latter price had been possible in second hands. There were also bids of 10½ for 100x60, contract.

Combed broadcloths were called for at prices mills were declining. On 128x68 combed, it was said, that possibly one mill or two might still sell at 15½c, but most mills now want a minimum of 16c with contracts held from 16½c to 17c, according to quality. In one instance it was pos-

sible to buy 144x76 singles, at 18c, but in nearly all other cases mills wanted a minimum of 18½c with the average price around 19c. Several inquiries made for 144x76, 2-ply, disclosed no price under 38½c and most of them from 1c to 2c a yard higher.

Moderate filling in sale continue to feature the tire fabric markets. Interest in future contracts is developing but as there is a great deal of uncertainty at the moment it manifests itself largely in talks with purchasing agents, many of whom are on a close hunt for information looking toward business to be placed in the next month or two.

Filling-in orders constituted the week's business in the Fall River print cloth market. Buyers have shown no desire to go ahead on contracts. Mills and buyers are interested in the Government condition and yield report of cotton, and it was generally expected trading would be quiet until this report is given out.

Early in the week mills advanced prices and this fact alone proved a deterrent to trading. These advances were strictly adhered to during the week, with buyers failing to absorb the ideas of mills except where small quantities were wanted. The week's sales are estimated at 60,000 pieces.

Plain rayons of the alpaca type sold for last quarter delivery at 15½c, South, in the 64x44s construction, foreign rayon, while Eastern grades sold at 16½c. Most mills ask a minimum of 16½c in the East and have done business on that basis. Dobby rayons now bring 17½c for the lower grade and mills ask as high as 19c for domestic rayon-filled goods. The volume of business on plain rayons has broadened greatly, and dobbie rayon looms are not easily had at many of the prices quoted or bid.

The 38½ inch numbers were quiet, with sales of small quantities holding to quotations.

Cotton goods prices were as follows:

Print cloths, 28-in., 64x64s.	6¼
Print cloths, 38-in., 64x60s.	6
Print cloths, 27-in., 64x64s.	5½
Gray g'ds, 38½-in., 64x64s.	8
Gray goods, 39-in., 68x72s.	9½
Gray goods, 39-in., 80x80s.	10½
Brown sheetings, 3-yard	11¼
Brown sh'tgs 4-yard, 56x60	9½
Brown sheetings, stand.	12
Tickings, 8-oz.	19½a21
Denims	16
Staple ginghams, 27-in.	9½
Kid finished cambrics	8 a 9
Dress ginghams	14½a16½

CHAS. H. STONE

DYESTUFFS AND CHEMICALS

CHARLOTTE, N. C.

Over Twenty-two Years Experience

The Yarn Market

Philadelphia, Pa. -- Inquiry for carded yarns continued active during the week, although sales were not large. Buyers appeared to be more interested in future requirements and willing to buy fairly large lots, but spinners were reluctant to trade very far ahead. The change in cotton prices at the close of the week and the disposition of many buyers to wait Monday's government report led to less interest Friday and Saturday. The volume of trading in small lots for prompt delivery continued fairly large and consumers were more willing to pay spinners prices than has been the case in some time. As the week closed, it was stated by many that trading for the next several weeks would likely be dull on account of the fact that both spinners and consumers are anxious to get further information on the cotton crop before trading into the future.

The best demand for carded yarns continued to come from the knitting trades, although weavers have recently been showing more interest and their purchases have been somewhat larger. Yarn rates were not affected by the drop in cotton prices. Spinners state that even at the lower cotton market, present yarn prices are below replacement value. It is pointed out that the spinners have not experienced a lowering of spot prices among their sources of cotton supply in the South. Furthermore, the spinners are in a stronger position, apparently, than they have been for a long while, as regards unfilled bookings. The spinners' present situation is regarded by yarn dealers as much superior to that of a year ago when most of the yarn mills were very anxious to book some additional orders.

Whether lower prices will develop in the carded yarn field remains to be seen, but in the case of combed and mercerized yarns, dealers here are expecting very little change. Staples, they aver, will be little affected by the downward movement of cotton, and on this account they are under the impression that customers should cover moderately at prevailing prices.

There have been no noticeable changes in combed yarn rates during the past three weeks, and as far as mercerized yarns are concerned prices which represented market values May 18 are still being quoted.

Southern Two-ply Skeins.

8s	27 1/2
10s	29 1/2
12s	29 1/2
14s	30 1/2
16s	30 1/2
20s	32

26s	36
30s	38
40s*	47
40st	48 1/2

Southern Two-ply Warps.

8s	28 1/2
10s	29 1/2
12s	29 1/2
14s	30
16s	31
18s	31 1/2
20s	32
24s	34
26s	36
30s	38
40s*	46 1/2

Southern Frame Spun Carded Yarn on Cones—Cotton Hosiery.

8s	28 1/2
10s	28 1/2
12s	29
14s	29 1/2
16s	31
18s	31 1/2
20s	32
22s	32 1/2
24s	32 1/2
26s	33
30s	34 1/2
40s	46

Southern Single Skeins.

4s-5s	28
10s	28 1/2
12s	29 1/2
14s	29 1/2
16s	30
18s	30 1/2
20s	31
22s	31 1/2
24s	34
30s	34 1/2
40s	44 1/2

Southern Single Warps.

4s-5s	28 1/2
10s	29 1/2
12s	29 1/2
14s	30 1/2
16s	31 1/2
18s	32 1/2
20s	32 1/2
24s	34 1/2
30s	36 1/2
40s	46 1/2

Southern Two-ply Comber Peeler Mercerizing.

8s-12s	44
20s	45
30s	49
36s	54
38s	56
40s	57
50s	59
60s	68
70s	78
80s	91

Southern Two-ply Hard Twist Combed Peeler Weaving Yarns.

8s-12s	40 1/2
10s	42 1/2
30s	47 1/2
36s	52 1/2
40s	54 1/2
50s	55 1/2
60s	57 1/2
70s	77 1/2
80s	86 1/2

Two-ply Mercerized Yarn.

20s	62
20s	66
40s	71
50s	78
60s	87
70s	1.01
80s	1.14

Celanese Corp. Plans \$2,500,000 Cellulose Acetate Factory

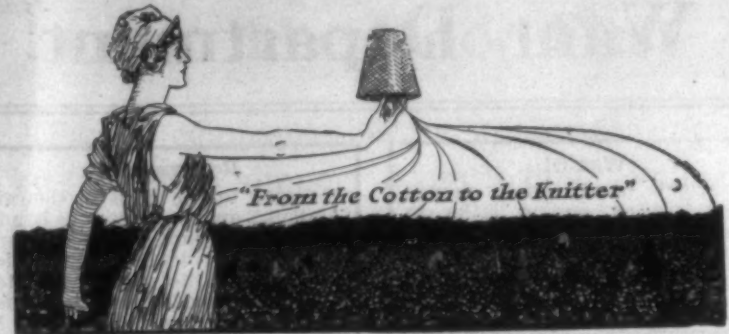
A chemical plant at Cumberland, Md., which will cost about \$2,500,000 to produce cellulose acetate, used in the manufacture of non-inflammable cellulose and allied products, is being planned by the Celanese Corporation of America, following the proposed acquisition of the Celluloid Company by the Safety Celluloid Company, a subsidiary of the Celanese Corporation.

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A second hand quick change screw cutting engine lathe in good condition with a 16 to 18 inch swing and a 10 to 14 foot bed. Address Martel Mills, Inc., Batesburg, S. C.

Information Wanted

The present address of Miss Evelyn Bramlett, who in May, 1925, lived in Charlotte, N. C., and worked in one of the mills in the city, is desired by R. D. Hicks of the Inman Telephone Exchange, Inman, S. C. If Miss Bramlett or her friends will kindly give us this information, will be greatly appreciated and will pay for same if desired.

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covering textile mills in Georgia, Alabama and Tennessee to handle high grade gums for sizing and finishing on liberal commission basis. Must be well acquainted with trade and be able to furnish best of references. Address J. M. C., care Southern Textile Bulletin.

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North Georgia Cotton Mill is desirous of obtaining services of man to assume position as second hand in carding department. Applicant will state age, whether married or single, past experience and give references from former employers. Address applications to M. B. A., care Southern Textile Bulletin.

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If the applicant is a subscriber to the Southern Textile Bulletin and his subscription is paid up to the date of his joining the employment bureau the above fee is only \$1.00.

During the three month's membership we send the applicant notices of all vacancies in the position which he desires and carry small advertisements for two weeks.

We do not guarantee to place every man who joins our employment bureau, but we do give them the best service of any employment bureau connected with the Southern Textile Industry.

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WANT position as overseer spinning in Texas, Ark., La. or Miss. 40 years of age. 20 years experience. Can handle small or large room. No. 5201.

WANT position as Superintendent or overseer weaving; can handle auto fabrics or plain goods. Would consider a good yarn mill. No. 5202.

WANTED by young man 21 years old with good references, position in mill office. Completed High School and the Georgia College of Commerce. Good stenographer and familiar with adding machine. No. 5203.

WANT position as superintendent, overseer carding or overseer spinning. References to anyone interested. No. 5204.

WANT position as overseer carding. 21 years experience on all kinds of work. No. 5205.

WANT position as overseer weaving. Experienced and competent. No. 5206.

WANT position as agent, superintendent or manager, anywhere. No. 5207.

WANT position as overseer carding, spinning, or spooling, twisting and warping. Can give the best of reference. No. 5208.

WANT position as superintendent, or as overseer weaving in a large mill. Best of references. No. 5209.

WANT position as overseer weaving. 10 years experience on plain and fancies, cotton or silk. Familiar with Draper, Stafford and Crompton & Knowles looms. Guarantee satisfaction. No. 5201.

WANT position as overseer weaving, wide and narrow sheetings, drills, satens or wrinkled bedspreads. 18 years experience in weaving, warping and slashing. No. 5211.

WANT position as overseer cloth room. 20 years experience. Good references. Married and strictly sober. Can change on short notice. No. 5212.

WANT position as overseer weaving. 10 years experience on plain, drills and twills. Can furnish best of references.

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WANT position as overseer cloth room. 20 years experience. Understand cloth grading and a good manager of help. No. 5217.

WANT position as overseer carding. In present position 5 years. Personal reasons for wishing to change. Best of references. No. 5218.

WANT position as superintendent, overseer spinning or overseer weaving. Can handle 2,500 looms and slashing in any mill. References. No. 5219.

WANT position as cashier, bookkeeper or other clerical work in mill office. Good stenographer, typist and correspondent. A willing worker. 9 years experience. No. 5220.

WANT position as overseer weaving. Would consider a night job. Eight years experience. Can handle large job. No. 5221.

WANT position in Piedmont section as mill office stenographer and general office work. Experienced. Good reference. Am a lady 23 years of age. No. 5222.

WANT position as overseer weaving. Overseer 10 years. I. C. S. diploma. Want to locate in North or South Carolina. 34 years old. Married. No. 5223.

WANT position as overseer weaving on plain or corded goods. 20 years experience. Best of references. No. 5224.

WANT position as overseer weaving. Experienced and competent. Good references. No. 5225.

WANT position as spinner. Familiar with carded and combed yarns, coarse and fine yarns. 10 years overseer. Best references. No. 5226.

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WANT position as dyer. 10 years experience on raw stock and skeins. Married and now employed. Address T. S., No. 5229.

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WANT position as assistant superintendent or overseer spinning. Age 35. Employed but want better location. Best of references. No. 5231.

WANT position as overseer carding or superintendent of yarn mill. Can make quick change, and give best of references. No. 5232.

WANT position as overseer small or second hand in larger fancy weaving department. 18 years weaving experience—6 years second hand. Good references. No. 5233.

WANT position as overseer carding. 20 years experience, grinding, fixing speeders, running picker and card room. Want day job. No. 5234.

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WANT position as superintendent or will take any department in a large mill. Expert on fancy weaves, all makes of looms. North Carolina preferred. Best references. No. 5236.

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WANT position as cloth room overseer or finisher. 20 years experience. References. No. 5239.

WANT position as overseer spinning, large plant. 15 years experience. 35 years old. Good references. No. 5240.

WANT position as superintendent or overseer weaving. Expert on cord fabrics. I. C. S. diploma. 26 years old. No. 5241.

WANT position as overseer weaving, slashing, spooling, warping. Plain or fancies, white or colored. References. No. 5242.

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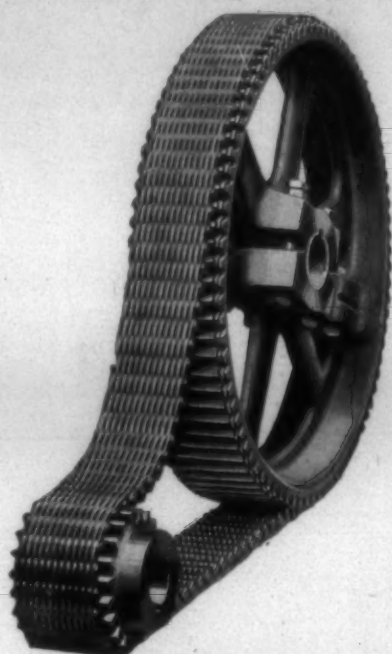
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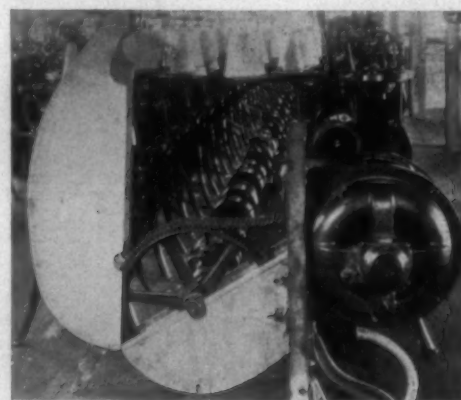
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